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ABSTRACT

In preparing for this report, surveys and focus groups were conducted with adults (N=900), with or without children under the legal drinking age, to determine their attitudes, views, and thoughts regarding the problem of underage drinking. The survey was designed to identify opportunities for civic engagement on the issue of underage drinking and to find more effective marketing strategies for policies aimed at preventing and controlling underage drinking. The report assesses the extent and consequences of underage drinking and documents the pathways to use and abuse of alcohol by children and teens. It identifies the obstacles that hamper efforts to prevent underage drinking, including the economic interests of the alcohol industry in teen alcohol consumption; the ready availability of alcohol to minors; parental attitudes; and the influence of the media and advertising. Several suggestions are discussed to help reduce underage drinking such as reducing availability, reducing demand, restricting advertising, and creating public policies to limit teen illegal access to alcohol. Appended are: Survey Descriptions; Survey; Survey Methodology; Industry Advertising Guidelines: Youth Related Provisions; and E-Methodology: Assessing the Value of Underage Drinking to the Alcohol Industry. (Contains over 300 references.) (JDM)

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America's Underage Drinking Epidemic

February 2002

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Accompanying Statement by Joseph A. Califano, Jr., Chairman and President

Alcohol is far and away the top drug of abuse by America's teens. Children under the age of 21 drink 25 percent of the alcohol consumed in the U.S. More than five million high school students (31.5 percent) admit to binge drinking at least once a month. The age at which children begin drinking is dropping: since 1975, the proportion of children who begin drinking in the eighth grade or earlier has jumped by almost a third, from 27 to 36 percent. And the gender gap that for generations separated alcohol consumption by girls and boys has evaporated: male and female ninth graders are just as likely to drink (40.2 percent and 41 percent) and binge drink (21.7 percent and 20.2 percent).

By any public health standard, America has an epidemic of underage drinking that germinates in elementary and middle schools with children nine to 13-years old and erupts on college campuses where 44 percent of students binge drink and alcohol is the number one substance of abuse--implicated in date rape, sexual harassment, racial disturbances, drop outs, overdose deaths from alcohol poisoning and suicides. Teenagers who drink are seven times likelier to engage in sex and twice as likely to have sex with four or more partners than those who do not. Such behavior can lead to unprotected sex with the increased risk of AIDS, other sexually transmitted diseases and pregnancy. Preliminary studies have shown that alcohol damages young minds, limiting mental and social development. High schoolers who drink are five times likelier to drop out of school.

No other substance threatens as many of the nation's children. Eighty percent of high school students have tried alcohol, while 70 percent have smoked cigarettes and 47 percent have used marijuana. Twenty-nine percent of high school seniors have used some other illegal drug such as Ecstasy.

Drinking is teen America's fatal attraction. Beer and other alcohol are implicated in the three top causes of teen deaths: accidents (including traffic fatalities and drowning), homicide and suicide. The financial costs of underage drinking approach $53 billion in accidents, drowning, burns, violent crime, suicide attempts, fetal alcohol syndrome, alcohol poisoning and emergency medical care.

Teens who experiment with alcohol are virtually certain to continue using it. Among high school seniors who have ever tried alcohol--even once--91.3 percent are still drinking in twelfth grade. Most troubling, of high school students who have ever been drunk, 83.3 percent--more than two million teens--are still getting drunk in twelfth grade.

This report makes clear: the time and place to deal with binge drinking in college is in elementary and high school.

Teen drinking is the number one source of adult alcoholism. Children who begin drinking before age 21 are more than twice as likely to develop alcohol-related problems. Those who begin drinking before age 15 are four times likelier to become alcoholics than those who do not drink before age 21.

Underage drinkers are at greater risk of nicotine and illegal drug addiction. Teens who are heavy drinkers (consume at least five drinks on at least five occasions over 30 days) are more than 12 times likelier to use illegal drugs than those who do not drink.

How did we get here?

We have to point the finger at ourselves.

Parents tend to see drinking and occasional bingeing as a rite of passage, rather than a deadly round of Russian roulette. Home--a child's or a child's friend's--is a major source of alcohol for children, especially for younger children. A third of sixth and ninth graders obtain alcohol from their own homes. Children cite other people's houses as the most common setting for drinking. In our schools, middle and high school teachers have been reluctant to inform parents or intervene when they suspect a child or teen of drinking. College administrators and alumni have played Pontius Pilate, washing their hands and looking away, as students made beer, alcohol and binge drinking a central part of their college experience. The pervasive influence of the entertainment media has glamorized and sexualized alcohol and rarely shown the ill effects of abuse. A review of 81 G-rated animated films found that in 34 percent of them alcohol use was associated with wealth or luxury and 19 percent associated alcohol with sexual activity.

Television runs ads glorifying beer on sports programs watched by millions of children and teens. General Electric had decided that one of "the good things it will bring to life" will be hard liquor commercials on its NBC network. In its craven collaboration with the distilled spirits industry, GE has made NBC the only network to hawk hard liquor on shows watched by millions of children and teens. With a big push from alcohol lobbyists, the Congress has denied the White House Office of National Drug Control Policy authority to include alcohol--the number one drug of abuse by children and teens--in its media campaign and other activities to prevent drug abuse.

The interest of the alcohol industry--especially those who sell beer--in underage drinking is understandable, if appalling. Underage drinkers are a critical segment of the alcohol beverage market. Individuals who do not drink before age 21 are virtually certain never to do so: 86.7 percent of adults who drink had their first drink of alcohol before age 21. Underage drinkers consume 25 percent of the alcohol--most often beer--sold in this country. In 1998, they accounted for up to $27 billion of the $108 billion spent on alcohol, including as much as $15 billion on beer. Without underage drinkers, the alcohol industry, and the beer industry in particular, would suffer severe economic declines and dramatic loss of profits.

Drawn from CASA's innovative *National Underage Drinking Survey* of adults, this report calls for a national mobilization to curb underage drinking. It sets out actions for parents, law enforcement, legislators, the entertainment industry and for a measure of self control by the beer, wine and liquor industries. It will take all of that to save millions of teens from destroying their lives through alcohol abuse. Our children are our future and, for adults, the future is now in mounting a national effort to curb teen drinking. This survey provides a road map of citizens' attitudes to guide federal, state and local officials interested in promoting public policies to reduce teen use of alcohol and binge drinking.

The prevention message is more difficult to convey with regard to alcohol. For smoking and illegal drug use, the message is, "No!" for children and adults. For alcohol, the message is "No!" for children under 21 (except for certain family and cultural occasions), but for most adults (those who are not alcoholics or alcohol abusers) the message is moderation, not prohibition.

This report continues CASA's ongoing analysis of the impact of substance abuse on America's systems and populations. We wish to thank Douglas L. Piper, Ph.D., Senior Researcher at the Pacific Institute for Research and Evaluation who conducted focus groups and managed our survey, and Thomas K. Greenfield, Ph.D., Senior Scientist and Center Director of the Alcohol Research Group for consultation on our analysis of the financial interests of the alcohol industry.

Susan E. Foster, M.S.W., CASA's Vice President and Director of Policy Research and Analysis, directed this effort. Linda Richter, Ph.D., senior research associate, was the Principal Investigator. Other CASA staff who contributed to the research were: Monica Anzaldi, M.A., research associate; Patrick Johnson, Ph.D., CASA Fellow; David Man, Ph.D., CASA's librarian; Ivy Truong, library research associate; Barbara Kurzweil, library research specialist; and Elizabeth Johnson, M.P.A., intern and research assistant. Tisha Hooks helped edit the report. Jane Carlson handled the administrative responsibilities.

While many individuals and institutions contributed to this effort, the findings and opinions expressed herein are the sole responsibility of CASA.

Chapter I
Introduction and Executive Summary

Alcohol is the number one drug of choice among America's teens and underage drinking is a problem of epidemic proportion. Children under the age of 21 drink 25 percent of the alcohol consumed in the U.S. Underage drinkers accounted for up to $27 billion of the $108 billion spent on alcohol in 1998, including as much as $15 billion on beer. More than five million high schoolers (31.5 percent) admit to binge drinking* at least once a month. Contrary to popular belief, girls are equally at risk as boys. The gender gap that once existed in adolescent alcohol use has closed, especially among younger teens.

Underage drinking and alcohol abuse can be catastrophic to young lives and the lives of those around them. Teenagers who drink are more likely than those who do not to have sex, to have sex at an earlier age and to have sex with multiple partners. Alcohol damages the young brain, interferes with mental and social development and interrupts academic progress. It is a major contributing factor in the three leading causes of teen death--accidents, homicide and suicide--and increases the chances of juvenile delinquency and crime.

Teens who use alcohol can pay the ultimate price if they mix drinking and driving or if they simply drink too much. The earlier young people drink and the more they drink, the more likely they are to become alcohol dependent and move on to other drugs. And there are other victims as well: the families of teen drinkers, those who have lost property and life to underage drinking and society which pays the bill.

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* The most frequently cited national surveys define binge drinking as having five or more drinks in a row at least once in the past 30 days. More recent research defines binge drinking as four or more drinks in a row for women and five or more drinks in a row for men.

In contrast, America's adults are at best ambivalent about underage drinking. More than 90 percent of adults say that they are concerned about the issue; yet they are a primary source of alcohol for teens and too often implicitly accept teen drinking. That is not the end of the problem:

- Alcohol ads continue to appeal to children and portrayals of alcohol use in the entertainment media are extensive and often presented glamorously and without consequence.
- The alcohol industry has a big financial stake in underage drinking. Over 60 percent of the alcohol consumed in the U.S. is linked to underage drinking and heavy drinking that largely begins in the teen years.
- Enforcement of existing underage drinking laws is spotty.
- Congress has restricted the U.S. Office of National Drug Control Policy from taking on America's number one drug: alcohol.*

America's ambivalence toward alcohol use is understandable. Alcohol use has been a part of the world's cultural and social landscape since the beginning of time. Despite the enormous social, health and economic toll underage drinking extracts, adults' alcohol use in moderation is acceptable and relatively safe. However, prevention programs for underage drinkers all too frequently are ineffective and treatment for children with alcohol problems is sorely lacking.

In preparing this report, CASA conducted a unique *National Underage Drinking Survey*, and carried out a series of focus groups, of adults with and without children under the legal drinking age. The *National Underage Drinking Survey* sought to determine the attitudes, views and thoughts of 900 adults regarding the problem of underage drinking and potential solutions. The survey was designed to identify opportunities for civic engagement on the issue of underage drinking and more effective marketing strategies for policies aimed at preventing and controlling underage drinking.

For the past two years, CASA has conducted special analyses of the underlying data in five national data sets† on the prevalence of underage drinking and attitudes about it. It has examined a wide variety of current strategies to reduce underage drinking and the state of prevention and treatment. CASA also reviewed some 500 articles and publications on the subject of underage drinking.

This report is the most ambitious assessment of the extent and consequences of underage drinking in America and documents the pathways to use and abuse of alcohol by children and teens. It identifies obstacles that hamper efforts to prevent underage drinking, including the economic interests of the alcohol industry in teen beer and other alcohol consumption, the ready availability of alcohol to minors, parental attitudes and the influence of the media and advertising.

Key Findings

Alcohol Is the #1 Drug for Children and Teens in America

- Each year approximately 3.3 million students between the ages of 12 and 17 start drinking. Alcohol use increases dramatically with age. Forty-one percent of ninth graders (1.6 million) currently use alcohol compared to 49.7 percent of tenth graders (2.0 million), 50.9 percent of eleventh graders (2.0 million) and 61.7 percent of twelfth graders (2.4 million). Combined, eight million high school students currently use alcohol.

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* The governing authority for ONDCP gives the term "drug" the meaning given the term "controlled substance" in the Control and Enforcement subchapter of Title 21 of the U.S. Code. 21 U.S.C. § 1701(3). "Controlled substance" specifically excludes "distilled spirits, wine, malt beverages, or tobacco...." 21 U.S.C. § 802(6).

† Monitoring the Future (MTF), Youth Risk Behavior Survey (YRBS), National Household Survey on Drug Abuse (NHSDA), American Drug and Alcohol Survey (ADAS) and CASA's Annual National Survey of American Attitudes on Substance Abuse (See Appendix A).

- The age when young people begin to use alcohol has declined. While 27 percent of the high school graduating class of 1975 began using alcohol in eighth grade or earlier, approximately 36 percent of the class of 1999 had done so.
- Eighty-one percent of high school students have drunk alcohol compared to 70 percent who have smoked cigarettes and 47 percent who have used marijuana. Among twelfth graders, 29 percent have used another illegal drug such as Ecstasy.
- Almost all teens who experiment with alcohol continue its use. Among high school seniors who have ever tried alcohol--even once--91.3 percent are still drinking in the twelfth grade--compared to 85.7 percent who have ever smoked, 76.4 percent who have ever tried marijuana and 61.3 percent who have ever tried cocaine. Of those students who had ever been drunk, 83.3 percent (approximately 2.1 million each year) are still getting drunk in the twelfth grade.
- In 1999, 41.6 percent of twelfth graders admitted binge drinking in the past 30 days. More than five million teenagers admit binge drinking at least once a month.
- The gender gap that once existed in adolescent alcohol use has closed, particularly among younger teens. Current alcohol use is nearly identical among male and female ninth graders (40.2 percent vs. 41 percent) as is binge drinking (21.7 percent vs. 20.2 percent).
- Current alcohol use is comparable among white (52.5 percent) and Latino (52.8 percent) teens and lower among African-American teens (39.9 percent).
- Younger teens (eighth graders) in rural areas are 29 percent more likely than their urban counterparts to have used alcohol in the last month and 70 percent more likely to have been drunk.

Underage Drinking Poses Enormous Threats to Children and Society

- The costs of underage drinking approach $53 billion each year in alcohol-related traffic accidents, violent crime, burns, drowning, suicide attempts, alcohol poisonings, fetal alcohol syndrome and treatment for alcohol abuse. In comparison, the federal government spent only two billion in FY 2000 on the prevention of underage drinking and drug abuse combined.
- Alcohol is a contributing factor in the three leading causes of death among children ages 12 to 18: accidents (including motor vehicle traffic fatalities and drowning), homicide and suicide.
- Thirty percent of 15- to 20-year old drivers who were killed in automobile accidents (2,447) had been drinking and 21 percent of drivers in this age group who were killed in automobile accidents (1,713) were legally intoxicated.
- Teen heavy drinkers[*] and binge drinkers are more than twice as likely as nondrinkers to say they deliberately try to hurt or kill themselves (14.9 percent of heavy drinkers and 11.7 of binge drinkers vs. 4.4 percent of nondrinkers); and more than twice as likely to say they think about killing themselves (19.3 percent, 18.6 percent and 7.9 percent, respectively).
- Adolescents who drink give significantly lower ratings of their own general health and frequent drinkers report more overnight hospital stays than those who do not.

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[*] Defined as having consumed five or more drinks on the same occasion on at least five different days in the 30 days prior to the interview.

- Teens who use alcohol are seven times likelier than teens who do not to have sex and twice as likely to have sex with four our more partners. Alcohol-using teens also are more likely to have sexual intercourse at an earlier age.

- Teen heavy drinkers are almost twice as likely as nondrinkers to say their schoolwork is poor (49.2 percent vs. 27.5 percent) and more than five times likelier to cut classes or skip school (54.7 percent vs. 9.9 percent).

- High school students who use alcohol are five times more likely than nonusers to drop out of school.

- The younger the drinker, the greater the risk to their cognitive development. After three drinks, learning among very young adults was found to be impaired 25 percent more than among adults in their late 20s who had had the same number of drinks.

- Alcohol-dependent youth fare worse than their nondependent peers on language and attention tests. Preliminary research suggests that because their brains are still developing, teens who abuse alcohol may be destroying a significant amount of their mental capacity.

- Teen heavy drinkers are more than 12 times likelier to be on juvenile probation than teens who do not drink (19 percent vs. 1.5 percent), and more than seven times likelier to have been arrested and booked for breaking the law (27.7 percent vs. 3.7 percent).

- The younger and more often a teen drinks, the higher the risk of developing alcohol-related problems: 26.9 percent of people who begin drinking before they reach the legal drinking age report having alcohol-related problems compared to only 11 percent of those who begin drinking only after they reach the legal drinking age. Children who begin drinking before the age of 15 are four times likelier than those who do not drink before 21 to become alcoholics.

- Underage drinkers are at a greater risk for nicotine addiction and for the use of illicit drugs. Two-thirds (66.7 percent) of teens who are heavy drinkers also use illicit drugs compared to 5.5 percent of teens who do not drink.

- Teens understand these problems if adults do not. An overwhelming majority (84 percent) of teens favor keeping or raising the legal drinking age of 21.

The Alcohol Industry Has a Financial Interest in Supporting Underage Drinking

- Underage drinking accounts for approximately 25 percent of all the alcohol consumed in the U.S. The alcoholic beverage of choice among teens is beer. Underage drinking accounted for up to $27 billion of the $108.4 billion in consumer expenditures for alcoholic beverages in the U.S. in 1998. Without sales to underage drinkers, the alcoholic beverage industry, and the beer industry in particular, would experience severe economic declines and dramatic loss of profits.

- Those who do not drink before age 21 are almost certain never to do so. CASA's analyses reveal that 86.7 percent of adults who drink had their first drink of alcohol before they reached the legal drinking age of 21. Most heavy or problem drinkers begin this behavior while still in their teens, and by the time they are adults, these heavier drinkers form a substantial portion of the market. Adults ages 21 and over who drink more than two drinks a day (more than the NIAAA recommended amount*) account for 36 percent of the total alcohol consumed in the U.S. and up to $39 billion of the $108.4

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* The National Institute on Alcohol Abuse and Alcoholism (NIAAA) recommended levels of one drink per day for women and two drinks per day for men.

billion in consumer expenditures for alcohol beverages in the U.S. in 1998.

- If alcohol use among underage drinkers and the heaviest drinkers (an average of nine drinks a day) were eliminated entirely and heavy drinkers (more than two drinks a day) converted to moderate drinkers, the total loss to the industry could be up to $56 billion or 52 percent of 1998 consumer expenditures on alcohol.

The alcohol industry (especially beer producers) has a substantial economic interest in developing and maintaining heavier drinking. For the industry, eliminating underage drinking and the heavy drinking it spawns represents an inherent conflict of interest.

The Media Normalizes the Problem

- Ubiquitous messages of alcohol use in the media normalize and legitimatize teen alcohol use and promote positive attitudes and expectations about alcohol. Alcohol manufacturers spend over one billion dollars each year on television, radio, print and outdoor advertising alone. However, the industry's total expenditures to promote their products may be three or more times this amount once other forms of alcohol promotion, including sponsorship of events, Internet advertising, distribution of brand-logoed items, product placements in movies and TV shows and price promotions are taken into account. In comparison, the entire 2001 budget of the National Institute on Alcohol Abuse and Alcoholism (NIAAA) was only $342 million.

- A recent study of 81 G-rated animated films found that nearly half showed characters using or abusing alcohol or tobacco, and that a significant proportion did not portray the long-term consequences of such use. In 34 percent of the movies, alcohol use was associated with wealth and luxury and in 19 percent of the movies, alcohol use was associated with sexual activity.

- For almost 50 years, liquor companies had voluntarily agreed not to advertise in the broadcast media. In 1996, the Distilled Spirits Council of the United States decided to end the ban and in December 2001, NBC announced its intention to advertise hard liquor on television. NBC justifies its position with a set of "guidelines" to target advertisements to adults. But the guidelines are a sham and will expose millions of children to hard liquor advertisements.

- Research suggests that drinking beliefs, knowledge and intentions to drink are positively influenced by awareness of the content of alcohol advertisements on television. For example, children with greater knowledge of beer brands and slogans have more positive beliefs about drinking and more frequently report intending to drink than adults. With greater exposure to beer advertising, children have higher recall of brand cartoon characters and hold more positive beliefs about the social and ritual uses of beer.

- Despite industry protestations that alcohol is not marketed to children, particular alcoholic beverages on the market have strong appeal to children and teens and are heavily promoted. Examples include the use of animation (e.g., Budweiser's talking lizards), animal characters (e.g., Budweiser's Spuds MacKenzie dog), humor (e.g., Budweiser's "Whassup!" commercial) and rock music, all commonly used in beer advertising campaigns and all of which have been shown to have wide appeal to young people.

- A new breed of sweet-tasting and colorfully packaged alcoholic beverages known as "malternatives" or "alcopops" has been added to the product line of the alcohol beverage industry. In the first six months of 2001, 217 labels for these specialty drinks (e.g., Rick's Spiked Lemonade, Tequiza, Hooper's Hooch, Smirnoff Ice, Skyy Blue) were approved by the Bureau of Alcohol, Tobacco and Firearms. Forty-one percent of teens, ages 14 to 18, have tried these sweet-tasting and colorfully packaged beverages. Teens are three times more likely than adults to be familiar with them and twice as many 14- to 16-year olds prefer them to beer or mixed drinks.

Parents are Unwitting Co-conspirators

- Among parents, permissive attitudes, ambivalence toward underage drinking, provision of alcohol to minors and limited awareness of children's use of alcohol contribute to underage drinking. When parents are tolerant of underage drinking on occasions other than when it is a basic component of a particular cultural event or religious ritual, children learn that it is acceptable.

- Home--a child's or a child's friend's--is a common source of alcohol for children, especially for younger children. One-third of sixth and ninth graders obtain alcohol from their own homes. Children cite other people's homes as the most common setting for drinking.

- A family history of alcoholism is a strong risk factor for a child's alcohol use, both because of the genetic link and because of environmental exposure to alcoholism.

- The nature of the parent-child relationship also is a major determinant of underage alcohol use. Failure to provide a caring and supportive family environment, set high expectations, monitor children's behaviors, spend time with children and maintain open communication all hike the risk of underage drinking.

Pathways to Alcohol Use and Abuse

The pathways for children and teens leading to underage drinking emerge from genetic, family and social factors. Personality traits such as lack of empathy for others, easy and frequent lying, insensitivity to punishment, aggression, impulsivity, depression, anxiety, low religious commitment and low self-esteem may be precursors of future alcohol use. Extroversion and novelty seeking, particularly among boys, are linked to higher rates of alcohol use, while good social skills like flexibility, empathy, caring, ability to communicate and a sense of humor have been identified in children resilient to the pressures of alcohol use. Teens who have higher self-esteem, self-discipline and impulse control and have a sense of purpose with regard to their futures are more likely to resist alcohol use.

Children reared in supportive and enriching home environments with engaged parents and clear boundaries are less likely to use alcohol. Children learn by example and the children of parents who display permissive attitudes towards drinking (e.g., allowing young children to fix their drinks) or model drinking as a way to relax or cope with problems are at greater risk to begin drinking early.

Peer groups play an important role in teen use but family and school can moderate the negative influence of peers. Schools and community environments that are caring and supportive, hold high expectations for achievement and encourage children and teens to participate in positive social events protect against underage drinking.

Prevention Programs

Strategies designed to reduce a child's demand for alcohol usually take the form of prevention programs primarily implemented in schools. Most prevention programs address substance abuse in general and focus less on alcohol use in particular. While few programs have achieved documented successes, the most effective programs appear to be those that are comprehensive and target many aspects of a child's life by involving the family and the larger community.

Adolescent Alcohol Treatment

Programs specifically aimed at adolescent alcohol abuse, particularly those that are accessible and affordable, are rare. Existing treatment programs primarily are based on adult models and do not conform to research-based evidence regarding what works best for treating young people. Even when appropriate treatment is available, many families either are unwilling to seek help for a child or are unaware of how to get the treatment they need. In 1997-1998, less than one in six of 12- to 17-year olds diagnosed as alcohol-dependent received treatment.

CASA's National Underage Drinking Survey

CASA's unique survey of 900 adults age 21 and over reveals that the vast majority of adults (92 percent) are personally concerned about underage drinking; 84 percent think that it is a problem in their own communities. Half of all adults (50.4 percent) hold parents primarily responsible for underage drinking and its associated problems. Half (52.2 percent) feel that the lack of parental involvement in a teen's life is the primary barrier to reducing underage drinking.

To address the problem, 76.1 percent of adults believe that parents should be held legally responsible for teen drinking. Other strategies preferred by adults include:

- Restricting home delivery of alcohol (85.2 percent),
- Creating nationally uniform zero-tolerance laws that consider drivers under the age of 21 with *any* blood alcohol content (BAC) to be driving while intoxicated or driving under the influence of alcohol (77.6 percent),
- Restricting alcohol advertising (74.1 percent),
- Requiring registration of kegs, in which beer kegs are marked with a unique identification number that is recorded by retailers along with the name, address and driver's license number of the keg buyer (71.2 percent),
- Undercover enforcement of existing laws (72.6 percent),
- Limiting teen access to commercial alcohol establishments (64.8 percent),
- Restricting teen access to alcohol in public places (63.5 percent), and
- Increasing alcohol taxes (54.1 percent). The most recent increase in the federal excise tax on alcohol took place in 1991. Following this increase, overall per capita alcohol consumption dropped by 6.1 percent.

Almost half of all adults (49.9 percent) prefer better enforcement of existing laws and regulations compared to enacting new ones (25.4 percent) or imposing more severe penalties for violating existing laws or regulations (24.7 percent).

For failure to comply with underage drinking laws or regulations, adults support the following penalties:

- Fines for underage drinkers (67 percent) or for parents of underage drinkers (60 percent) and community service for underage drinkers (100 percent) or for parents of underage drinkers (85 percent).
- Sanctions against adults lending their ID (96.3 percent), providing alcohol to underage friends (95 percent) or providing alcohol to younger siblings (83.9 percent).
- Suspension of licenses (88.5 percent), civil liability (83 percent) or criminal liability (82 percent) for commercial establishments that sell alcohol to minors.

Opportunities and Next Steps

CASA has identified key issues and opportunities for parents and children, policymakers, educators, prevention specialists, treatment providers and the alcohol industry that appear to hold the greatest promise for reducing underage drinking:

Be "Hands-On" Parents by being involved in children's day-to day activities, talking with them about alcohol use and its consequences and modeling healthy behavior.

A Checklist for Parents

✓ Set rules and expectations and enforce consequences.
✓ Eat dinner together.
✓ Monitor TV and Internet use and CD purchases.
✓ Know your children's friends and where they go.
✓ Send clear messages about alcohol use.
✓ Discuss negative consequences of drinking.
✓ Give your children perspective on media messages.
✓ Don't show your children that it takes a drink to relax.
✓ Don't accept underage drinking as a rite of passage.
✓ When your child needs help, get treatment--fast!

Hold Parents Legally Responsible for their children's alcohol use through fines and community service requirements.

Engage Children and Young Adults in efforts to reduce underage drinking among their peers. Educate them about the effects and consequences of underage drinking and teach them to recognize and understand the persuasive appeal of alcohol advertising. Inform teens of their importance to alcohol industry profits. Engage them in positive future planning and provide more recreational activities and facilities for children.

Step Up Enforcement of Underage Drinking Laws for children and young adults who drink alcohol and the individuals and commercial establishments that provide it to them. Impose fines and community service requirements on underage drinkers and adults providing alcohol or lending their IDs to children. Penalize commercial establishments that sell alcohol to minors through suspended licenses and civil and criminal liability, and increase undercover enforcement of underage drinking restrictions.

Restrict Social and Commercial Availability of Alcohol to Minors by restricting home delivery of alcohol to minors, requiring keg registration, regulating the distance of commercial alcohol establishments from schools and other places where children congregate and prohibiting sales of alcohol in public places such as beaches and parks.

Ban Alcohol Advertising on Television for beer, wine and distilled spirits. Promote responsible messages in the media (e.g., on-line, print and radio) and the entertainment industry about underage alcohol use (including its connection to dangerous sexual practices by teens).

Require Prominent Warning Labels in all alcohol advertising. Currently, the U.S. federal government, through the Alcohol Beverage Labeling Act, only requires warning labels to appear on all alcohol beverage containers.

End Alcohol Sponsorship of child-oriented activities such as athletic leagues and events.

Expand the Authority of the Office of National Drug Control Policy to include alcohol. Congress should require the ONDCP to address alcohol (and tobacco) in addition to illegal drugs. The ONDCP should expand their national "Anti-drug" campaign to include alcohol.

Fund Additional Treatment Services to close the adolescent treatment gap.

Step Up Research for effective alcohol prevention and treatment for children. Examine the link between alcohol use and the use of nicotine and illicit substances, and develop effective anti-drinking messages for media campaigns. Researchers should continue to explore the relationship between the media and advertising and children's alcohol consumption.

Create an Independent Foundation financed by the alcohol industry (modeled after the American Legacy Foundation) to develop ads and other methods to discourage underage drinking.

Increase Alcohol Taxes and dedicate revenues to prevention and treatment of alcohol abuse and alcoholism.

Chapter II
Underage Drinking: What's the Problem?

The biggest drug problem among children and young adults today is alcohol. Underage drinking results in devastating consequences to both young people and adults--illness, death, teen pregnancy, academic difficulties, property damage and crime.[1] The costs to society of alcohol use and abuse are estimated conservatively at $184.6 billion annually.[2] Approximately 30 percent--$53 billion--is due to underage drinking in alcohol-related traffic accidents, violent crime, burns, drowning, suicide attempts, alcohol poisonings, fetal alcohol syndrome and treatment for alcohol abuse.[3] The human costs are incalculable.

Alcohol: The #1 Child and Young Adult Drug Problem

Each year, there are approximately 3.3 million teens between the ages of 12 and 17 who take a drink of alcohol for the first time.[*][4] By twelfth grade, up to 81 percent of teens have tried alcohol compared with the 70 percent who have smoked cigarettes and 47 percent who have used marijuana.[5] Among twelfth graders, 29 percent have used another illegal drug such as Ecstasy and cocaine.[6]

Underage alcohol use increases sharply with each passing year. Forty-one percent of ninth graders (1.6 million) currently use alcohol compared to 49.7 percent of tenth graders (2.0 million), 50.9 percent of eleventh graders (2.0 million) and 61.7 percent of twelfth graders (2.4 million). Combined, eight million high school students currently use alcohol.[7]

Although adolescent alcohol use rises with age, teens begin to use alcohol early in life. Over five million children (32.2 percent) have their first alcoholic drink (more than a few sips) before age 13.[8] This is particularly troubling since the

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[*] More than just a few sips.

18

younger and more often a teen drinks, the higher the risk of progressing to problem drinking: 26.9 percent of children who begin drinking before they reach the legal drinking age report having alcohol-related problems compared to only 11 percent of those who begin drinking only after they reach the legal drinking age.[9]

Rates of teen drinking have remained alarmingly high over the past decade.[10] Nationwide, 40.6 percent of ninth graders, 49.7 percent of tenth graders, 50.9 percent of eleventh graders and 61.7 percent of twelfth graders report current use of alcohol.[11]

Binge Drinking

The patterns of alcohol use among adolescents differ from those of adults. Teens drink less frequently than adults, but are more inclined to drink larger amounts at any one time. A Harvard School of Public Health study found that fewer underage college students were using alcohol than in the past, but those who did drink consumed more per occasion than did of-age students.[13]

A measure of this phenomenon is binge drinking--having five or more drinks in a row.[14] Currently 21.1 percent of ninth graders (851,596), 32.2 percent of tenth graders (1.28 million), 34 percent of eleventh graders (1.33 million) and 41.6 percent of twelfth graders (1.6 million) report binge drinking in the past 30 days. In total, more than five million (31.5 percent) high school students binge drink.[15]

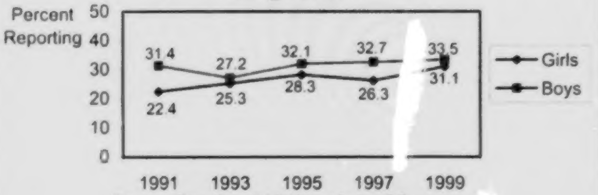
> *Alcohol is the number one drug of choice among our Nation's youth. Yet the seriousness of this issue does not register with the general public or policymakers.*[12]
>
> --Enoch Gordis, M.D., former Director
> National Institute on Alcohol Abuse and Alcoholism

Gender Differences in Underage Drinking

The gender gap that once existed in teen alcohol use has closed, particularly among younger teens (Figure 2.A).

Figure 2.A

Percent of 10th Grade Girls and Boys Who Binge Drink



Source: Based on CASA's analysis of five years of data from the Youth Risk Behavior Survey.

Although male students are more likely than female students to have tried alcohol before age 13 (37.4 percent vs. 26.8 percent),[16] overall rates of current alcohol use among teens are only slightly higher among boys than among girls (52.3 percent for boys and 47.7 percent for girls).[17] Younger boys and girls have more similar drinking rates than older boys and girls. Rates of current alcohol use are the same among male and female ninth graders (40.2 percent vs. 41 percent), but among twelfth graders, males' current alcohol use rates are higher (66.6 percent vs. 56.9 percent).[18]

Overall among teens, boys are slightly more likely than girls to binge drink (34.9 percent vs. 28.1 percent).[19] However, this gender gap evaporates among younger teens. Whereas males in twelfth grade are more likely to binge drink than are females (49.5 percent vs. 33.9 percent), in the ninth grade there is virtually no difference in binge drinking rates between males and females (21.7 percent vs. 20.2 percent).[20]

Racial/Ethnic Differences in Underage Drinking

Rates of current alcohol use for high school students are comparable among white and Latino teens (52.5 percent and 52.8 percent, respectively) and significantly lower among African-American teens (39.9 percent).[21] Rates of alcohol use and abuse among Native Americans in seventh through twelfth grade are comparable to that of white teens.[22] In 1988, 91 percent of high school seniors living on Indian reservations had used alcohol and 70 percent had been drunk.[23]

Population Density Differences in Underage Drinking

Drinking among teens is higher in rural and suburban America than in large urban centers. CASA's study, *No Place to Hide: Substance Abuse in Mid-Size Cities and Rural America*, found that eighth graders in rural areas were 29 percent more likely to have used alcohol and 70 percent more likely to have been drunk in the past month than their large metropolitan-area counterparts.[24] Current alcohol use by tenth graders and high school seniors also was higher in small metropolitan and nonmetropolitan areas than in large cities.[25]

Other research confirms this finding. A national survey found slightly higher drinking rates among 12- to 17-year olds living in small and nonmetropolitan areas than in large metropolitan areas (20 percent in small metropolitan areas, 20.1 percent in nonmetropolitan areas, and 17.7 percent in large metropolitan areas).[26]

A study of suburban and inner city adolescents found that frequency of alcohol use was greater among suburban males and females than among their inner city counterparts.[27]

Pathways to Underage Drinking

No formula exists for identifying those young people who will engage in alcohol use or if that use will lead to dependency and addiction. What serves as a trigger to alcohol use in one individual might have no detrimental effects in another. Nevertheless, the presence of multiple risk factors--rather than just a few--makes a child more likely to develop alcohol use problems, and there is growing evidence of factors that seem to protect children against alcohol abuse.

Researchers on underage alcohol use primarily focus on risk and protective factors related to the individual, family, peers and the community.[28] These factors may influence whether a child or teen drinks or may be strongly associated with underage drinking, but they cannot be viewed as definitive causes of underage drinking.

The Individual

Personality. Certain personality and behavioral characteristics may provide warning signs of whether a young person will drink alcohol. Research has found that lack of empathy for others, easy and frequent lying, insensitivity to punishment, aggression, impulsivity, novelty-seeking, depression, anxiety, low religious commitment and low self-esteem may be precursors of future alcohol use.[29] An extroverted personality is associated with early age of onset of drinking, perhaps because extroverted individuals are more likely to be in social situations where drinking occurs.[30] One study found that boys who exhibited "high novelty seeking" traits (impulsivity, excitability, curiosity, distractibility) combined with "low harm avoidance" traits (demonstrating less caution, fear, shyness and inhibition) were 20 times likelier to abuse alcohol.[31]

Good social skills such as flexibility, empathy, caring, the ability to communicate and a sense of humor have been identified in children resilient to the pressures of alcohol use.[32] Adolescents with high self-esteem, self-discipline, impulse control and a sense of purpose about their futures are more resilient and therefore less likely to abuse alcohol and better able to withstand negative peer pressure.[33]

Academics. Academic difficulty is associated with underage drinking. One study found that poor school performance at ages eight and 14 predicted alcohol and other drug abuse at age 26.[34] Adolescents who become alcoholics have lower productivity in high school and greater truancy and incidence of dropping out.[35] Academic problems and alcohol use may both result from common risk factors, such as low self-esteem, impulsivity or a dysfunctional family environment.

Coping Skills. Stress, often linked to negative life events, is associated with adolescent alcohol use.[36] African-American women physically abused in childhood have been found almost two-and-a-half times likelier to drink heavily and six-and-a-half times likelier to binge drink than those without a history of physical abuse.[37] The ways in which individuals deal with stress (i.e., coping mechanisms) have been noted as potential predictors of alcohol use.[38]

Good coping skills, such as dealing directly with a problem rather than avoiding it, protect against adolescent alcohol abuse.[39] The most prominent school-based substance abuse prevention programs focus on the development of these skills in hopes that they will help insulate a child from engaging in alcohol and other drug use.

Expectations. Positive expectations about alcohol's effects are strongly associated with adolescent alcohol use and alcohol-related problems.[40] Positive expectations fall into several categories: *assertiveness* (drinking will make me more assertive), *affective state* (drinking will make me feel happy), *general social interaction* (the party will be more fun with alcohol), *cognitive and motor functioning* (drinking and school performance are not related), *tension reduction* (drinking is a good way to relax), and *sexual functioning* (drinking will make me less sexually inhibited).[41] Negative expectations about alcohol, mostly the opposite in each of the above categories, can be deterrents to alcohol use.[42] However, positive and negative expectations differ in children depending on their age and whether or not they have already tried drinking.[43] Those who have already tried are more likely to have positive expectations of alcohol's effects than those who have not yet used alcohol.[44]

> *Kids drink to deal with emotional problems; drinking is an outlet for them.*
>
> *Kids drink because of boredom.*
>
> *Some of these kids are medicating themselves to get through the day.*
>
> --Participants
> CASA Focus Group

The Family

Family History. A family history of alcoholism is a strong risk factor for underage alcohol use, both because of the genetic link and because of environmental exposure to alcoholism.[45]

Studies of adopted children and twins who have grown up in different environments have established that genetic factors play a role in the transmission of alcohol use from parent to child.[46] Adopted children with alcohol-dependent biological parents are at least twice as likely as other adopted children to become alcoholics.[47] The contribution of genetic factors appears to be more significant in situations of problem use or abuse than in situations of casual use.[48]

The most important family-related environmental risk factor for children and teens' alcohol use is parental use.[49] Children tend to model or imitate their parents' alcohol-use behaviors, especially if they have a close relationship.[50] Therefore, exposure to familial alcohol use also is an important risk factor for underage drinking.[51]

Children who grow up in families with permissive alcohol use norms (such as when parents ask children to make drinks for them) or whose parents model drinking as a way to relax or cope with problems are at greater risk for becoming underage drinkers.[52]

Children of alcoholics (COAs) compared to nonCOAs, are at increased risk for alcohol problems; they tend to initiate alcohol use earlier and engage in problem drinking at a younger age.[53] COAs are approximately four times more likely than nonCOAs to become alcoholics or alcohol dependent.[54]

Relationship with Parents. The nature of the parent-child relationship is a major determinant of underage alcohol use.[55] According to CASA's teen survey, *Back to School 1999--National Survey of American Attitudes on Substance Abuse V: Teens and Their Parents*, teens who had an excellent relationship with either parent had risk scores for substance use that were 25 percent lower than the average teen; those with excellent relationships with both parents had risk scores 40 percent lower.[56] Teens with positive involvement/nurturing scores had average risk scores that were one-third lower than teens from less nurturing families.[57] In addition, CASA's *National Survey of American Attitudes on Substance Abuse VI: Teens*, revealed that adolescents with parents who are engaged in their children's lives, supervise their teenagers and impose rules and standards of behavior are four times less likely to engage in substance abuse than teens whose parents are less involved in their lives.[58]

Children who grow up in caring and supportive family environments, in which the parents have high expectations of their children and encourage their children's participation in family routines and rituals, are less likely to abuse alcohol.[59] Parental monitoring of children's behaviors and an authoritative parenting style--being warm but also exerting behavioral control over children--protect against underage drinking.[60] Open parent-child communication, flexibility, bonding, parental support, monitoring of conduct and parental demands that make children aware of the consequences of their actions all reduce the risk of underage alcohol abuse.[61]
Children left alone to take care of themselves for extended periods of time (in one study, for five days or more) are at great risk for heavy drinking and drinking to intoxication.[62] "Latchkey" children (those who care for themselves after school hours) are almost four times more likely to report having gotten drunk in the past month than non-"latchkey" children (9.1 percent vs. 2.4 percent, respectively).[63]

> *Something that makes kids drink... is what their peers are doing. I think it's peer pressure. They drink because people they run with do.*
>
> --Participant
> CASA Focus Group

> *If you look at two subsets, young people with good parental monitoring and those without, the difference in alcohol use is staggering.*[64]
>
> --Hoover Adger, M.D.
> Former Director of ONDCP
> Professor, Department of Pediatrics
> Johns Hopkins Medical School

Children of divorced parents tend to report significantly greater levels of alcohol use than do children from intact families. One study found that 54 percent of children of divorced parents use alcohol compared to 36 percent of children of parents who had never divorced.[65] However, research suggests that children often are better able to avoid substance use when in a nurturing single parent home than when in a dysfunctional intact home.[66]

Race. Protective family factors that appear to be more strongly linked to specific racial/ethnic groups may help explain group differences in underage alcohol use, such as the finding that African-American adolescents are less likely to drink than white and Latino adolescents.[67] Many African-American families are female-headed households, in which women abstain from drinking. Children reared in these homes may have limited exposure to drinking and limited access to alcohol.[68] A generally stronger religious affiliation among many African-American families also might help explain the lower rates of alcohol use among African-American children.[69]

Peers

Adolescents with friends who drink are more likely to drink as well.[70] Peer influence occurs early in school, with sixth, seventh and eighth graders being five times more likely to drink if they have two or more friends who drink.[71] Teens who have alcohol-using friends tend to begin drinking at an earlier age.[72]

One of the most influential theories to describe this phenomenon (*Peer Cluster Theory*) holds that adolescent substance use takes place within the context of groups of best or very close friends (peer clusters).[73] Proponents of this theory argue that peers play an important role in establishing the attitudes, beliefs and group norms for substance use behavior and that family and schools influence the formation of the peer clusters.[74]

The School and Community

Many of the risk factors for underage alcohol use can be found within a child's school and larger community.[75] In general, like the family environment, school and community environments that are caring and supportive, hold high expectations for achievement, and encourage children's participation in events are protective against underage drinking.[76]

On the other hand, a general *laissez faire* attitude toward underage drinking within the school or community encourages the use of alcohol.[77] The concentration of alcohol establishments, especially in poor and urban areas, also can contribute to increased alcohol consumption.[78]

Adolescents who have both the opportunity to succeed in school and in the larger community and who have positive role models are less likely to use alcohol and other drugs.[79] A child who feels connected to school and the larger community and participates in after-school activities and community events is at lower risk for alcohol abuse.[80]

The Devastating Consequences of Underage Alcohol Use

Underage drinking can rob teens of their future and devastate families. Alcohol is implicated in the three leading causes of death among teens ages 12 to 18: accidents (including motor vehicle traffic fatalities and drowning), homicide and suicide.[81]

Underage drinking can compromise a child's health and mental and emotional development. It can lead to risky sex and teen pregnancy. It can erode academic progress and carry a teen to juvenile hall or prison rather than to school and a good job. It can hike the risk of alcohol dependency, nicotine addiction and the use of other drugs such as Ecstasy, cocaine and heroin.

Damage to the Brain and Cognitive Functioning

Teenagers who drink may be exposing their brains to the toxic effects of alcohol during a critical time in brain development. Preliminary research, mostly involving animal studies, suggests that because their brains are still developing, teens who drink to excess may be destroying significantly greater mental capacity than older drinkers.[82] The younger the drinker, the greater the risk they incur to their cognitive functioning.

Scientists--examining cognitive functioning in adolescent and adult rats and then extrapolating from those experiments to humans--have found that teen drinkers appear most susceptible to damage in the hippocampus, a part of the brain that is responsible for certain aspects of learning and memory, as well as damage in the prefrontal cortex which is responsible for decision making.[83] The average size difference of the hippocampus between healthy teens and alcohol-abusing teens is roughly 10 percent.[84]

Results of studies on animals led researchers to suspect that alcohol consumption might have a dramatic effect on adolescents' ability to learn.[85] In a study comparing individuals in their early 20s to those in their later 20s (the researchers could not use younger human subjects for ethical reasons), the researchers found that, after three drinks with a blood alcohol level slightly below 0.08 percent, the younger group's learning was impaired 25 percent more than the older group's.[86]

Recent research has shown that the behavior of alcoholics (and drug addicts) is similar to that of individuals who have experienced damage in a part of the brain that is involved in decision making.[87] Both addicts and those with brain damage in the ventromedial prefrontal cortex are more likely to make decisions that will bring them instant gratification, despite later negative consequences, than are nonaddicts or individuals without damage to that part of the brain.[88] In addition to showing deficits in learning and decision-making ability, alcohol-dependent teens fare worse than nondependent teens on language and attention tests.[89] Teens with alcohol problems compared to those without demonstrate greater difficulty recalling both verbal and nonverbal information that they had learned just 20 minutes earlier.[90]

> *Several years of heavy alcohol use by youth can adversely affect their brain functions in ways that are critical to learning.*[91]
>
> --Sandra Brown, Ph.D.
> Professor of Psychology
> University of California, San Diego

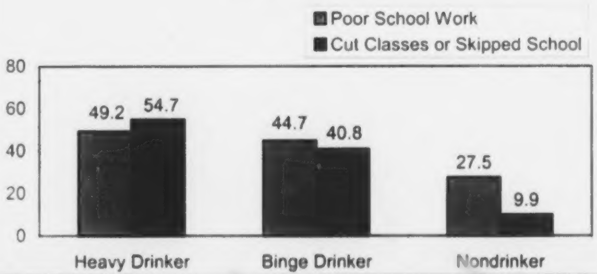
Academic/Work Problems

The cognitive effects of alcohol on the brain impair students' academic performance. Prior to recent research demonstrating alcohol's physiological effects on the brain and the consequent impairments in cognitive functioning, academic problems among alcohol-using teens primarily were thought to be due to lack of studying and too much partying.

Not surprisingly, students who abuse alcohol are less likely to do well in school and to show a commitment to schooling.[92] Heavy and binge drinkers between the ages of 12 and 17 have been found to be far more likely than nondrinkers to say that their school work is poor (49.2 percent for heavy drinkers, 44.7 percent for binge drinkers and 27.5 percent for nondrinkers), and four to five times more likely to say that they cut classes or skip school (54.7 percent for heavy drinkers, 40.8 percent for binge drinkers and 9.9 percent for nondrinkers).[93] (Figure 2.B)

Figure 2.B

Percent of Students Doing Poor School Work, Cutting Classes or Skipping School by Level of Alcohol Use



Students at high risk for alcohol abuse also are at high risk for being left back, absent or suspended from school and for performing poorly in reading and math.[94] Sixteen to 18 percent of teen drinkers have been found to miss school or work because of alcohol use.[95]

High school students who use alcohol or other substances are five times more likely to drop out of school than nonusers.[96] A study conducted in Norway confirmed U.S. findings that the risk for school dropout increases with the frequency of intoxication.[97] In this study, drunkenness was found to be related to skipping school, having friends who engage in problem behaviors, spending fewer hours on homework, getting lower grades and exhibiting more conduct problems.[98]

Teens who do not have plans to go to college are more likely to use alcohol.[99] Eighth grade students who do not have plans to attend a four-year college are nearly twice as likely to use alcohol as their college bound peers (41.2 percent vs. 21 percent).[100] Among tenth graders, more than half (52.4 percent) of those without plans to attend college drink alcohol compared to just about a third (36.5 percent) of those who do have college plans.[101] The gap is smaller among twelfth graders but college bound high school seniors are still less likely to use alcohol (50.9 percent) than noncollege bound seniors (56 percent).[102] (Figure 2.C)

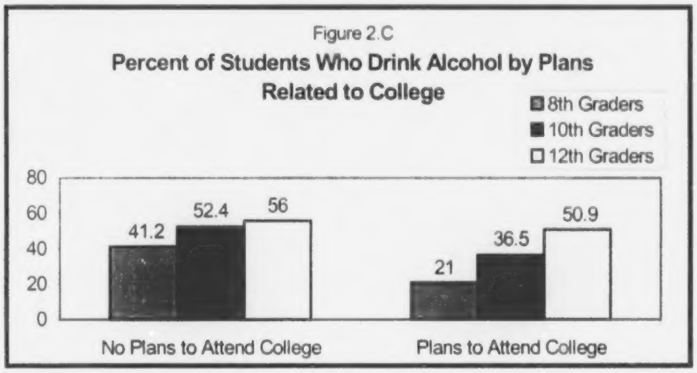


Figure 2.C
Percent of Students Who Drink Alcohol by Plans Related to College

Compromised Health

Young drinkers run the risk of developing numerous health complications due to alcohol use, especially where use progresses to abuse and dependence. Coronary heart disease, stroke, liver cirrhosis and various forms of cancer are just some of the illnesses that have been associated with alcohol abuse.[103] But the health risks for young people who drink are not confined to the distant future. Young people who report current alcohol use give significantly lower ratings of their own general health than do alcohol abstainers or past users.[104] Furthermore, children who engage in frequent alcohol use report having had more overnight hospital stays during the past year than less frequent drinkers.[105]

Alcohol abuse tends to co-occur with other health conditions, such as bulimia nervosa and anorexia nervosa, as well as with mood disorders such as depression and anxiety, particularly among girls.[106] Research suggests that approximately 23 percent of women with bulimia and six percent of those with anorexia have comorbid alcohol abuse and/or dependence.[107] Up to 35.5 percent of individuals with a mood disorder and 44.9 percent of those with anxiety disorders are alcohol dependent.[108] In some circumstances, alcohol abuse precedes these other mental health disorders and in other circumstances, these mental health disorders precede the onset of alcohol abuse or dependence.[109]

Sexual Behavior

One of the best predictors of teen sexual activity and risky sexual behavior is alcohol use.[110] Teens who drink are more likely than teens who do not drink to have sex, to have sexual intercourse at an earlier age and to have sex with more partners.[111] CASA's report, *Dangerous Liaisons: Substance Abuse and Sex*, found that high school students who have used alcohol at least once in their lives are seven times more likely to have had sex and twice as likely to have had sex with four or more partners than teens who do not drink.[112]

Fifty-five percent of teens say that sex while under the influence of alcohol or drugs is often a reason for unplanned teenage pregnancies.[113] Almost one-quarter (23 percent) of sexually active teens and young adults--about 5.6 million 15- to 24-year olds nationally--report having unprotected sex because they were drinking or using drugs at the time. Twenty-nine percent say that because of alcohol and drug use, they did "more sexually than they had planned."[114] An estimated 25 percent (3.8 million) of the 15.3 million new cases of sexually transmitted diseases in 1998 were among teens ages 15 to 19.[115]

Given that only 58 percent of high school age drinkers and drug users report using condoms, it is reasonable to assume that the risk for HIV, other sexually transmitted diseases and pregnancy are significant for teens who use alcohol.[116] One study found that among all teens who drink, 16 percent use condoms less often after drinking.[117] Among sexually active teens, those who drink five or more drinks daily are nearly three times less likely to use condoms.[118] A study of Massachusetts teens found that 44 percent of the teens surveyed said they were more likely to have sex if they had been drinking and 17 percent said that they were less likely to use a condom when they had been drinking.[119]

Delinquency

Alcohol use and abuse are involved significantly in the delinquent behaviors of teens. Among teens under the age of 18 in long-term state-operated juvenile institutions, 31.9 percent were under the influence of alcohol at the time of arrest.[120] Of all inmates incarcerated for felonies in 1996, four percent of federal and state inmates and six percent of jail inmates were alcohol-involved offenders under the age of 21.[121]

One study of teenage alcohol users found that 17 percent had been in a fight, 18 percent had been in trouble at home or at school and seven percent had been arrested.[122] Teen heavy drinkers are three times likelier and binge drinkers are two times likelier than nondrinkers to have gotten into a physical fight (46.5 percent, 37.3 percent and 15.2 percent, respectively).[123]

Teen heavy drinkers and binge drinkers are more likely than nondrinkers to steal from places other than their home (24.3 percent, 18.3 percent and 6.1 percent, respectively) and to destroy things that belong to others (18.5 percent, 11.4 percent and 6.7 percent, respectively).[124] Teen heavy and binge drinkers are three to four times likelier than nondrinkers to say they took something from a store without paying for it (33.2 percent, 27.3 percent and 7.7 percent, respectively).[125]

Teen heavy drinkers are the most likely to report having been on probation in the past year (19.0 percent for heavy drinkers, 6.8 percent for binge drinkers and 1.5 percent for nondrinkers) and the most likely to report ever having been arrested and booked for breaking the law (27.7 percent for heavy drinkers, 17.3 percent for binge drinkers and 3.7 percent for nondrinkers).[126]

The estimated cost of alcohol-related teen violence and delinquency--derived from costs associated with medical care, lost work and quality of life--is $29.4 billion annually.[127]

Suicide

For young people ages 15- to 24-years old, suicide is the third leading cause of death, behind unintentional injury (accidents) and homicide.[128] Alcohol use is a significant risk factor for suicide attempts. Among teens, alcohol is estimated to be involved in 12 percent of boys' suicides and eight percent of girls' suicides.[129] In one study of suicide among adolescents, 70 percent of young people who attempted suicide frequently used alcohol and/or other drugs.[130]

Adolescent heavy drinkers and binge drinkers are more than twice as likely as nondrinkers to say they deliberately try to hurt or kill themselves (14.9 percent of heavy drinkers, 11.7 of binge drinkers and 4.4 percent of nondrinkers) and more than twice as likely to say they contemplate suicide (19.3 percent, 18.6 percent and 7.9 percent, respectively).[131]

The estimated national cost of alcohol-related adolescent suicide--as measured by medical costs, lost work and quality of life--equals $1.5 billion annually.[132]

Alcohol may be related to suicide in several ways. It is a depressant. Drinking may reduce inhibitions and impair the judgment of someone who is contemplating suicide, making suicide attempts more likely. Alternatively, alcohol use is related to other risk factors for suicide, including depression and other mental illnesses.[133]

Auto Accidents

In 2000, 16,653 people were killed in alcohol-related automobile accidents.[134] Thirty percent (2,447) of 15- to 20-year old drivers who were killed in auto accidents had been drinking. Twenty-one percent (1,713) of drivers in this age group who were killed in crashes were legally intoxicated.* [135] Alcohol-related motor vehicle fatality rates are nearly twice as great for 18-, 19- and 20-year olds as for the population over 21.[136]

The costs associated with teen alcohol-related traffic accidents totaled $19.5 billion dollars in 1998.[137] Of this amount, $13 billion was due to pain and suffering, $5.3 billion was due to work loss, property damage and emergency services, and $1.1 billion was due to medical care.[138]

Driven largely by the desire to curb traffic fatalities associated with alcohol consumption, the National Minimum Drinking Age Act of 1984 required all states to raise the age at which individuals can purchase and publicly possess alcohol to 21 or risk losing federal highway funds under the Federal Highway Aid Act.[139] By 1987, all states had complied with the 21 minimum drinking age law.[140]

These laws are credited with contributing to a reduction in traffic fatalities involving drivers ages 18- to 20-years old by 13 percent and saving an estimated 19,121 lives since 1975.[141] In 1999 alone, an estimated 901 lives were saved by minimum drinking age laws.[142] However, other factors may have contributed to the reduction in traffic fatalities, including new mores about drunk driving--attributable in large part to the efforts of grassroots movements such as Mothers Against Drunk Driving (MADD) and Students Against Drunk Driving (SADD), zero-tolerance laws for underage drivers and more aggressive enforcement of driving under the influence (DUI) laws.

Thirty-three percent of students (5.2 million) report riding in a car at least once during the past 30 days with a driver who had been drinking and 13 percent of students (two million) nationwide report that they had driven a vehicle at least once while under the influence of alcohol.[143] Male students are twice as likely as female students (17.4 percent vs. 8.7 percent) to have driven after drinking alcohol.[144] Sixteen percent of binge drinkers† and 32 percent of heavy drinkers‡ said that they drive while under the influence.[145] One study of young drivers' attitudes towards drinking and driving found that only 15 percent of those surveyed reported using a sober designated driver when drinking.[146]

Increased Risk of Alcohol Dependence and Use of Other Drugs

While 27 percent of the class of 1975 initiated alcohol use in eighth grade or earlier, 36 percent of the class of 1993 had done so.[147] Initiation rates have remained relatively stable since then.[148] The mean age of first use of alcohol declined from 17.7 in 1980 to 16.3 in 1998.[149]

Teen alcohol use is so common that experimenting with it is often thought of as a defining feature of adolescence or as a rite of passage.[150] Drinking alcohol is one way that many adolescents assert their independence, challenge social conventions, gain peer acceptance and--like adults--cope with stress and anxiety.[151] This fact leads some prevention experts to suggest a focus on simply preventing alcohol abuse rather than on preventing use. Experimentation and occasional use, however, are not necessarily inevitable and can be dangerous.

Individuals who initiate alcohol use early in life are at increased risk for becoming problem drinkers. Young people who begin drinking before the age of 21 are more than twice as likely to develop alcohol-related problems.[152] Individuals who begin drinking before the age of 15 are four times more likely to become alcohol dependent than those who do not drink before age 21.[153] The prevalence of lifetime alcohol abuse is greatest for those who begin drinking at age 14.[154] From age 15 on, the risk of future alcohol dependence decreases by 14 percent with each passing year of abstention.[155] One study found that teens who are diagnosed with an alcohol problem during high school are more likely to have drinking problems at age 24.[156]

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* BAC level of 0.10 g/dl or greater.

† Consumed five or more drinks on at least one but no more than four occasions in the past 30 days.

‡ Consumed five or more drinks per occasion on five or more days in the past 30 days.

The largely unrecognized and sinister danger of experimentation is that relatively few students only experiment and then stop. Among high school seniors who have ever tried alcohol--even once--91.3 percent are still drinking in the twelfth grade.[157] Of those students who had ever been drunk, 83.3 percent are still getting drunk in the twelfth grade.[158]

Students who engage in regular alcohol use as teens are at the greatest risk for becoming binge drinkers in college. Forty-four percent of college students report binge drinking.[160] Research has shown that students who enter college as nondrinkers will likely remain abstainers at least through the first two years of their college experience. Conversely, high school students who drink alcohol more than 10 times in a month are likely to drink in their freshman year of college.[161] Preventing student alcohol use and abuse during the early teen years may prove to be the most effective way of reducing the high rates of alcohol use and binge drinking in college.

> *Colleges are inheriting behaviors learned in high school.*[159]
>
> --Henry Wechsler, Ph.D., Director
> College Alcohol Studies Program
> Harvard School of Public Health

Underage drinkers are at greater risk for nicotine addiction[162] and for illicit drug use.[163] One in three teens who had used alcohol in the past month also used illicit drugs.[164] Among heavy-drinking teens, 66.7 percent had used illicit drugs. Among nondrinkers, only 5.5 percent were current illicit drug users.[165] Adults who used alcohol by age 18 are four times more likely to regularly use illicit drugs.[166]

Although most teens who smoke, drink or use marijuana will not move on to heroin and cocaine, teens who use alcohol, nicotine and marijuana are far more likely to get into harder drugs than those who do not.[167] The younger and more often a teen drinks, the higher the risk of progressing to alcohol abuse and to the use of illicit drugs. The risk for progression to the "next stage" of substance use (e.g., from alcohol to marijuana) is dramatically increased for those who start using substances before age 15.[168]

Biomedical and scientific studies are beginning to unearth the reason for this strong statistical relationship among alcohol, tobacco, marijuana, cocaine, heroin and other illicit drugs and their use. Recent studies at universities in California, Italy and Spain reveal that all these substances affect dopamine (the chemical that gives pleasure) in the brain by disrupting its normal flow and producing feelings of pleasure and reward and, over time, addiction and vulnerability to withdrawal symptoms.[169]

Chapter II
Notes

[1] Levy, T., Miller, T. R., Spicer, R., Stewart, K., & Cox, K. (1999).

[2] National Institute on Alcohol Abuse and Alcoholism. (2000a).

[3] Levy, T., Miller, T. R., & Cox, K. C. (1999).

[4] Substance Abuse and Mental Health Services Administration. (2000b).

[5] Centers for Disease Control and Prevention. (2000b). *Several national surveys provide information on youth substance use (Appendix A). Most provide information on current drinking, binge drinking and trends in alcohol use among youth. The Monitoring the Future (MTF) study, the Youth Risk Behavior Survey (YRBS), the National Household Survey on Drug Abuse (NHSDA) and the American Drug and Alcohol Survey (ADAS) provide information on alcohol use prevalence rates and trends. It is important to note that rates of alcohol use derived from these surveys can be considered conservative in that the figures provided are obtained by having respondents report on their own use and, therefore, may underestimate actual use. These surveys either are administered in the classroom or in the youth's home. Although respondents are told that their answers to the questions will be kept confidential, students might feel inhibited about providing honest, accurate responses regarding their alcohol use because of the presence of teachers, parents or other adult figures. Furthermore, the school-based surveys do not include youth who have dropped out of school, many of whom have high rates of alcohol and other drug use.*

[6] Johnston, L. D., O'Malley, P. M., & Bachman, J. G. (2002).

[7] Centers for Disease Control and Prevention. (2000b).

[8] Centers for Disease Control and Prevention. (2000b).

[9] *Findings based on CASA's analysis of 1997 NHSDA data.*

[10] Centers for Disease Control and Prevention. (2000b); Johnston, L. D., O'Malley, P. M., & Bachman, J. G. (2000b); Substance Abuse and Mental Health Services Administration. (2000b).

[11] Centers for Disease Control and Prevention. (2000b). *Data from the 2000 Monitoring the Future (MTF) survey provide somewhat lower numbers, indicating that 37.8 percent of youth drink alcohol, with 22 percent of eighth graders, 41 percent of tenth graders and 50 percent of twelfth graders reporting current alcohol use. Forty-three percent of eighth graders, 65.3 percent of tenth graders and 73.2 percent of twelfth graders report having used alcohol within the year prior to the interview. The 1999 NHSDA, which provides the lowest rates of adolescent substance use found that 29.4 percent of teens under the legal drinking age report using alcohol at least once in the past month and 34.9 percent of teens report using alcohol in the past year.*

[12] Leadership to Keep Children Alcohol Free. (2001).

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[14] *Definitions of binge drinking vary by study: YRBS: Five drinks of alcohol on more than one occasion on more than one of the 30 days preceding the survey. MTF: Five or more drinks in a row during the prior two-week period. NHSDA: Five or more drinks on one occasion during the past 30-day period.*

[15] Centers for Disease Control and Prevention. (2000b). *According to the 2000 MTF survey, 14.1 percent of eighth graders, 26.2 percent of tenth graders and 30 percent of twelfth graders reported binge drinking in the past month.*

[16] Centers for Disease Control and Prevention. (2000b).

[17] Centers for Disease Control and Prevention. (2000b).

[18] Centers for Disease Control and Prevention. (2000b). *The 1999 MTF survey demonstrated a similar finding with no significant difference between male and female eighth graders in current drinking (24.8 percent vs. 23.3 percent) but higher alcohol use rates among twelfth grade male students compared to twelfth grade female students (55.3 percent vs. 46.8 percent).*

[19] Centers for Disease Control and Prevention. (2000b).

[20] Centers for Disease Control and Prevention. (2000b). *The 2000 MTF survey found similar results with dramatically higher rates of binge drinking among twelfth grade males than females (39.2 percent vs. 24 percent), but comparable rates of binge drinking among males and females in the eighth and tenth grades.*

[21] Centers for Disease Control and Prevention. (2000b). *The 1999 MTF findings were consistent with these, indicating that rates of drinking were highest among white twelfth graders and lowest among African-American twelfth graders. Likewise, the 1999 NHSDA findings indicate that rates of drinking were highest among white youth ages 12 to 17 and lowest among African-American youth of this age; this trend was consistent across gender. Overall, 19.9 percent of white non-Latino youth used alcohol in the past month, compared to 19.8 percent of Latino youth and 13.3 percent of black non-Latino youth.*

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Chapter III

Obstacles to Reducing Underage Drinking

In the face of the formidable consequences of underage drinking, America's response is paltry. For every dollar the federal government spends on alcohol use and abuse prevention services, society spends $53 on the consequences of underage drinking.[1]

The vast majority of adults think underage drinking is a big problem in America today. Most think that adults are responsible for the crisis and that it is related to the lack of parental involvement in the lives of their children. Adults support holding parents accountable for providing alcohol to minors and want better enforcement of existing laws.

Lax enforcement of laws restricting children and teens' access to alcohol, the economic interests of the alcohol industry, positive alcohol messages in the media and ambivalent parental attitudes all serve as obstacles to curbing underage alcohol use. The alcohol industry itself has a substantial economic interest in heavier drinking and most heavy or problem drinkers begin this behavior while still in their teens. Ubiquitous--and often inaccurate--messages about alcohol use in the media and permissive parental attitudes normalize and encourage teen alcohol use and promote positive attitudes and expectations about alcohol.

The prevention message is more difficult to convey with regard to alcohol. For smoking and illegal drug use, the message is "NO!" for children, teens and adults. For alcohol, the message is "NO!" for those under 21 (except for certain family and cultural occasions), but for most adults (those who are not alcoholics or alcohol abusers), the message is moderation, not prohibition.

The result is a national ambivalence about alcohol and underage drinking. This ambivalence is exemplified in the fact that the Office of National Drug Control Policy (ONDCP)--whose FY 2000 budget included more than two billion to reduce teen drug use[2]--is prohibited by Congress from addressing the largest child and teen drug problem in America.[3] In establishing ONDCP, the Congress limited its authority to a "controlled substance" which specifically excludes "distilled spirits, wine, malt beverages or tobacco." This exclusion protects the economic interests of the beer, wine, hard liquor and tobacco sellers.

The CASA National Underage Drinking Survey

To measure public attitudes toward underage drinking and strategies for reducing it, CASA conducted a comprehensive *National Underage Drinking Survey*, interviewing a nationally representative sample of 900 adults. (See Appendix B for survey and Appendix C for survey methodology.) This survey was modeled, in part, after the *Youth Access to Alcohol Public Opinion Survey*, sponsored by The Robert Wood Johnson Foundation.[4] The design of the survey was influenced by the findings from a series of focus groups CASA conducted with adults over the age of 21.

In the survey, respondents were asked about the consequences of underage drinking, who they think is responsible for the problem and what they consider the barriers are to reducing it. Respondents were presented a series of policy options to reduce underage drinking and asked whether they would favor having each implemented in their communities.

Public Attitudes on the Causes and Consequences of Underage Drinking

CASA's survey reveals that nine of 10 (92 percent) adults are concerned about underage drinking and eight of 10 (84 percent) think it is a problem in their communities. Adults tend to hold teen peers and parents accountable for the underage drinking problem while placing little blame on the alcohol industry or the media. Parents are perceived as bearing primary responsibility for the problem, particularly because of their limited involvement in the lives of their children.

Main Concerns About Underage Drinking

Respondents were asked to name a possible consequence of underage drinking that most concerns them. There responses included: physical health problems (16.8 percent), delinquency or criminal behavior (13.4 percent), the risk of developing alcoholism or dependence (13.4 percent) and the danger of progression to illicit drug use (12.1 percent). (Table 3.1)

Table 3.1
Main Concerns About Underage Drinking*

Concern	Percent
Physical Health	16.8
Delinquency or Criminal Behavior	13.4
Risk of Developing Alcoholism or Dependence	13.4
Gateway to Illicit Drug Use	12.1
Risk of Sexual Behavior	11.9
Financial Cost to Society	9.9
Emotional or Social Consequences	9.4
Academic or Work Problems	5.3

The consequence respondents perceive as most pressing varies by respondents' age, sex, ethnicity and whether or not the respondent has a child under the age of 21.† The youngest group of respondents (21- to 24-year olds) is the most concerned about the financial costs to society of underage drinking (18.5 percent) while older respondents (45- to 64-year olds) are primarily concerned about physical health problems (37.1 percent).

The most frequently mentioned concern among men is the potential for delinquency or criminal behavior (15.3 percent); for women it is the potential for physical health problems (20.5 percent). More women (20.5 percent) than men (13 percent) report being most concerned about physical health.

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* All tables in Chapter III are based on analysis of the CASA National Underage Drinking Survey.

† Unless otherwise indicated, each of the following differences noted, as well as others reported in this chapter, is statistically significant at the p<.05 level.

The main concern of Latino (24.2 percent), white (17.3 percent) and individuals of mixed races (18.2 percent) is the physical health of the child; of African-Americans, delinquency or criminal behavior (26.2 percent); of Asian/Pacific Islanders, the gateway to illicit drug use (33.3 percent).

The chief concerns for adults with children under the age of 21 are the physical health consequences of underage drinking (16.2 percent), the possibility for delinquency or criminal behavior (15.9 percent) and risky sexual behavior (14.2 percent). Among those without children under the legal drinking age, physical health consequences (17.5 percent) and the potential for alcohol dependence or alcoholism (15.5 percent) and the progression to illicit drug use (12.2 percent) are of most concern.

Half of Adults Say Parents Are Responsible for Underage Drinking

Half of the respondents (50.4 percent) believe parents bear most responsibility for underage drinking and its associated problems. Twenty-nine percent place primary responsibility on the peer group. Only 6.8 percent say that alcohol establishments are most responsible and less than three percent place primary responsibility on the media or alcohol industry. (Table 3.2)

The youngest respondents (ages 21 through 24) are least likely to place responsibility for the problem of underage drinking on parents (37.5 percent vs. 51.5 percent of respondents age 25 and older) and most likely to place responsibility on the peer group (35.7 percent vs. 27.67 percent of respondents age 25 and older).

Table 3.2
Primary Responsibility for Underage Drinking

Responsibility	Percent
Parents	50.4
Peer Culture	29.1
Establishments That Sell Alcohol	6.8
Inadequate Law Enforcement	2.9
Media	2.5
Alcohol Industry	2.2
Political Leaders	1.0

Adults See Peers as Major Influences

While most adults accept responsibility for underage drinking, seven in 10 respondents (69.3 percent) see the peer group as the main influence on children's decisions to drink. Only about one in 10 (10.8 percent) feel that parental influence is the most important reason why people under 21 drink alcohol. Less than three percent placed primary blame on the media/entertainment industry or alcohol advertising (Table 3.3).

Although the majority of respondents of all racial/ethnic groups say the peer group is the greatest influence, white individuals are less likely to cite parental influence (nine percent) than other racial/ethnic groups (ranging from 15.2 percent to 31.3 percent).

Table 3.3
Main Influence on Underage Drinking

Influence	Percent
Peer Group	69.3
Parental Influence	10.8
Depression or Emotional Problems	5.5
Restlessness	5.4
Relax or Be Less Inhibited	3.0
Media/Entertainment Industry	2.2
Alcohol Use by Adults	0.9
Alcohol Advertising	0.9

Respondents' drinking behaviors are related to their perception of the biggest influence on underage drinking. Infrequent drinkers are more likely to place the blame on the peer group (70 percent) than are frequent drinkers[*] (46.2 percent). Frequent drinkers are more likely

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[*] Those who drink daily or almost daily.

(15.4 percent) than less frequent drinkers (five percent) to cite issues of depression or emotional problems as a main reason why people under 21 drink alcohol. Similarly, individuals without a drinking problem are likelier to implicate peer influences (70.9 percent) than those with a personal drinking problem (60 percent).

Major Barrier: Lack of Parent Involvement

Just over half (52.2 percent) say that a lack of or limited parental involvement in teens' lives is the primary barrier to reducing underage drinking. Almost one in five (18.6 percent) say that ineffective enforcement of existing underage drinking laws and regulations is the main barrier. Less than seven percent cite a lack of effective prevention or treatment programs or the media as a main barrier. Less than four percent cite alcohol advertising as the main thing standing in the way of reducing underage drinking. (Table 3.4)

Table 3.4

Perceived Barriers to Reducing Underage Drinking

Barrier	Percent
Lack of or Limited Parental Involvement in Teens' Lives	52.2
Ineffective Enforcement or Current Laws or Regulations	18.6
Lack of Effective Prevention Programs	6.8
Media	6.8
Insufficient Laws or Regulations	6.0
Alcohol Advertising	3.5
Lack of Effective Treatment Programs	3.0

More than a third (36.2 percent) of African-Americans say that a lack of parental involvement in teens' lives is the primary barrier to reducing underage drinking compared with 73.3 percent of whites. The youngest respondents (ages 21 to 24) are likeliest (64 percent) to cite low parental involvement in the lives of children as a main barrier to reducing underage drinking. Respondents age 45 to 54 (an age group most likely to include parents of teenagers) are the least likely of all the age groups to mention low parental involvement (42.5 percent). However, when comparing adults with and without children under the age of 21, more respondents with underage children (56.3 percent) cite low parental involvement as a main barrier to reducing underage drinking than those without children under the age of 21 (48 percent).

Adults Optimistic about Reducing Underage Drinking

The general public is optimistic about resolving the problem of underage drinking. The overwhelming majority (84.5 percent) agrees that it is possible to reduce underage alcohol use. The youngest respondents are less hopeful than all other age groups. Almost one-quarter of those respondents (22.1 percent) either somewhat or strongly disagree with the statement that it is possible to reduce underage drinking. Men tend to be more pessimistic than women. Almost one in five males (18.5 percent) do not think that underage drinking can be reduced compared to 12.7 percent of females. Individual drinking patterns influence respondents' perceptions of the amenability of the underage drinking problem to change. Whereas the overwhelming majority (87.9 percent) of light drinkers and nondrinkers believe it is possible to reduce the problem, only 72 percent of the heaviest drinkers are similarly hopeful.

Adults Think Public Policy Is Important Lever

Three-quarters of the respondents (74.7 percent) agree that policies, regulations and laws can help reduce underage drinking. Women tend to have somewhat more confidence in this approach (78.7 percent) than men (70 percent). Responses also differ by political affiliation. Democrats are more confident than Republicans that policy initiatives can help solve the problem (80.9 percent vs. 72 percent strongly or somewhat agreed). Responses vary with individual drinking patterns: significantly more respondents who reported infrequent drinking (79.4 percent) agreed that governmental initiatives could help reduce underage drinking compared to only 50 percent of the heaviest drinkers.

Individuals who view insufficient laws or regulations as the most significant barrier to reducing underage drinking are the most sanguine about the role of policy (91.3 percent) in reducing underage drinking. In addition, people who view parents as a primary influence on underage drinking tend to be much more optimistic (81.7 percent) about the role of policy than people who view teen feelings or needs, such as teen restlessness (65.2 percent), depression/emotional problems (71.7 percent) or the need to relax/be less inhibited (68 percent) as the primary influence on underage drinking.

Overcoming the Obstacles to Reducing Underage Drinking

Major barriers to reducing underage drinking include access of children and teens to alcohol, the economic interests of the alcohol industry, the ubiquitous media messages glamorizing alcohol use and the attitudes and behaviors of parents.

Obstacle: Children and Teen Access to Alcohol

One significant contributing factor to underage drinking is easy access to alcohol.[5] In 2001, 70.6 percent of eight graders, 87.7 percent of tenth graders and 94.3 percent of twelfth graders said it is "fairly easy" or "very easy" to obtain alcohol.[6]

Efforts to reduce availability of alcohol to young people are complicated by the fact that alcohol is a legal drug with perceived social benefits. Adults across the nation consume alcohol responsibly and in moderation. Alcohol is a common and enjoyable companion to dining in this country, an integral part of many celebratory events and incorporated into some religious rituals. In many of these activities, adults routinely include teens in ways that expose them to responsible alcohol use.

But many times adults send messages to children that are not so responsible. Parents may minimize the consequences of alcohol use, particularly by children. They may teach their children by their own behavior that alcohol use is the way to relax or that excessive drinking is fun. They may look the other way or even provide alcohol to their children for personal use or for parties.

Many teens obtain alcohol by asking strangers to buy it for them, using their older siblings' identification cards to purchase alcohol, stealing from parents and being served alcohol by their parents.[7] Research indicates that although most students who drink obtain alcohol from their friends and/or at parties,[8] children's homes and family members are common sources of alcohol, especially for younger children.[9] One study found that teens cite other people's homes as the most common setting for drinking.[10]

> *We can't blame teenagers for the problem when it's adults who are providing the alcohol to them. A lot of the problem is that parents just don't see alcohol as a problem.*[11]
>
> --Ferris Morrison, Project Manager
> North Carolina Initiative to Reduce Underage Drinking

A recent study of sixth, ninth and twelfth graders found that one-third of the sixth and ninth graders were getting alcohol from their homes.[12] Only two percent of teens relied solely on commercial sources for alcohol.[13] Another study found that adults over the age of 21 were the primary source of alcohol for teens in the ninth and twelfth grades and for older teens 18- to 20-years old.[14] At the same time, other studies suggest that it is fairly easy for teens to purchase alcohol from commercial establishments.[15] One survey of teens found that approximately two-thirds of teenagers who drink report that they can buy their own alcohol.[16]

Obstacle: The Economics of the Alcohol Industry

A major obstacle to reducing underage drinking is that doing so is a conflict of interest for the alcohol industry. An estimated 61 percent of the alcohol consumed in the U.S. is consumed by underage drinkers (25 percent[*]) and adult heavy drinkers[†] (36 percent), most of whom begin drinking in their teens.

CASA considers the 25 percent estimate for alcohol consumption by underage drinkers to be conservative for three reasons. First, the estimate does not include any drinking by children under the age of 12. Second, the analysis takes into account the number of drinks consumed on a typical drinking day which may exclude instances of heavy or binge drinking. Finally, these estimates are based on self-reported alcohol use which is widely believed to underrepresent actual alcohol use, particularly among young people.

According to alcohol industry data, 57 percent of the total alcohol consumed is beer, 14 percent is wine and 29 percent is distilled spirits.[17] CASA's analysis indicates that underage drinking of beer accounts for an estimated 14 percent of all the alcohol consumed; underage drinking of wine accounts for an estimated four percent of all the alcohol consumed; and underage drinking of distilled spirits accounts for an estimated seven percent of all the alcohol consumed. (Table 3.5) (See Appendix E for methodology.)

In 1998, total consumer expenditures for alcohol beverages in the U.S. were $108.4 billion: $59.8 billion on beer, $14.5 billion on wine and $34.1 billion on distilled spirits.[18]

Assuming that underage drinkers drink the same proportions of beer, wine and distilled spirits as adult drinkers, underage drinking comprised up to $27 billion of the total $108.4 billion in consumer expenditures in 1998, or up to $15 billion for beer, $4 billion for wine and $8 billion for distilled spirits. It is likely, however, that underage drinkers consume an even higher proportion of beer, which is typically less expensive than the other types of beverages. Since available data do not allow for analyses that take into account the actual proportion of each beverage consumed by underage drinkers, these estimates may be somewhat high. Nevertheless, even if consumer expenditures linked to underage drinking were half this amount, they would still constitute a significant proportion of the total consumer expenditures for alcohol.

Table 3.5

Percent of Alcohol Consumption by Beverage, Age and Level of Drinking

Beverage	Age 12-20	Age 21 and Over	
		>2 drinks/day (top 8.5 %)	Average of 9 drinks/day (top 2.5 %)
Beer	14	21	12
Wine	4	5	3
Distilled Spirits	7	10	6
Total	**25**	**36**	**21**

Heavy drinking among adults comprised up to $39 billion of the total $108.4 billion in consumer expenditures in 1998, or up to $22 billion for beer, $6 billion for wine and $11 billion for distilled spirits. CASA's analysis indicates that among adults heavy drinking of beer accounts for an estimated 21 percent of all the alcohol consumed; heavy drinking of wine accounts for an estimated five percent of all the alcohol consumed; and heavy drinking of distilled spirits accounts for an estimated 10 percent of all the alcohol consumed. (Table 3.5)

Underage drinking and the heavy drinking it spawns together account for up to 61 percent of total consumer expenditures for alcohol in 1998--$66 billion. Without sales to underage drinkers, the alcohol industry and particularly the beer industry would be in economic distress since net profits of the beer industry in 2001 averaged less than 10 percent.[19] So, while the alcohol industry collects up to $66 billion from underage and heavy drinkers, society pays conservatively $184.6 billion in annual costs for alcohol abuse and alcoholism.[20]

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[*] Adjusting for outliers (improbable extreme values) reduces this value by one percent for wine consumed.

[†] Drinking more than two drinks a day--surpassing the NIAAA definition of moderate drinking.

New Recruits. The alcohol industry must maintain or increase consumption of its product if it is to ensure future profits. This means that it must continually attract new drinkers as the population ages and dies. The industry also must weather national trends that would serve to reduce consumption, such as increased health consciousness or targeted programs to reduce drinking in certain population groups (youth).

Overall, rates of alcohol use have declined in the past 20 years: 72.9 percent of the population 12 and older reported using alcohol in 1979 compared to 64 percent in 1998.[21] As overall alcohol consumption has declined, however, rates of binge drinking among youth have increased.[22] Since the alcohol industry relies on heavier drinkers for significant portions of its revenues, it is important not only to recruit new drinkers but also to recruit heavier drinkers.

CASA's analysis demonstrates that nine of 10 (86.7 percent) adults who drink had their first drink of alcohol before they reached the legal drinking age of 21 years.[23] Individuals who are the most likely to become heavy or problem drinkers are those who initiate alcohol use before the age of 21.[24]

The Heaviest Drinkers. A recent study by the Alcohol Research Group (ARG) of the Public Health Institute in Berkeley, found that the heaviest 2.5 percent of drinkers ages 18 and older--who consumed, on average, six or more drinks of alcohol per day--account for 27 percent of the total alcohol consumed in one year in the United States.[25] Of these heaviest drinkers, 60 percent were between the ages of 18 and 29.[26]

Using 1998 data from the alcohol industry and from the National Household Survey on Drug Abuse (NHSDA), CASA's analysis replicated ARG's findings, revealing that the heaviest 2.5 percent of drinkers ages 18 and older consumed 26 percent of the total alcohol consumed in 1998.

In order to avoid double counting those in the 18 to 20 age group, CASA conducted additional analyses of adult alcohol consumption levels in 1998 by dividing the population into those who are underage (see analysis above) and those who are of legal drinking age (21 and older). These analyses revealed that the top 2.5 percent of the adult population ages 21 and over consumed up to 21 percent ($23 billion) of the total $108.4 billion in consumer expenditures in 1998, or up to $13 billion for beer, $3 billion for wine and $7 billion for distilled spirits. CASA's analysis indicates that the heaviest drinkers of beer* account for an estimated 12 percent of all the alcohol consumed; the heaviest drinkers of wine account for an estimated three percent of all the alcohol consumed; and the heaviest drinkers of distilled spirits account for an estimated six percent of all the alcohol consumed. (Table 3.5)

Economic Impact of Moderate Drinking. CASA's analysis indicates that if underage drinking ($27 billion) and drinking by the heaviest drinkers (those drinking an average of nine drinks/day) ($23 billion) were eliminated, and if heavy drinkers were converted to moderate drinkers (loss of $6 billion), the alcohol industry stands to lose up to half (54 percent or $56 billion) of total annual consumer expenditures on alcohol. Up to $32 billion would be lost in the beer industry alone.

Since underage and heavy drinkers may be more likely to drink beer--a less expensive beverage--these estimates may be high. However, even if the loss to the alcohol industry were only half this amount it still represents an enormous disincentive to the alcohol industry to participate in the goal of reducing heavy and underage drinking. Eliminating heavy and underage drinking represents an inherent conflict of interest for the alcohol industry.

Obstacle: Alcohol Media Messages

Children ages eight to 18 consume almost seven hours of media (e.g., television, print media, video games) per day outside of school and homework.[27] The time children spend per week watching TV, playing video games and surfing the Internet is often without parental supervision.[28] Television is the medium of choice for Americans and is available in virtually every U.S. household.[29] Given that adolescents, particularly young teens, often rely on the media as a source of information, and given that young teens start forming attitudes about alcohol at the time when their exposure to the media is among the heaviest in their lives,[30] concern about alcohol-related messages presented in the media is warranted.

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* Those drinking an average of nine drinks/day.

Advertising. Alcohol manufacturers spend more than one billion dollars each year on advertising.[31] The alcohol industry's total expenditures to promote their products may be three or more times this amount once other forms of promotion, including sponsorship of events, Internet advertising, distribution of brand-logoed items, product placements in movies and TV shows and price promotions, are taken into account.[32] In 1999, Anheuser-Busch alone spent more than $320 million on advertising; in comparison, the entire 1999 budget of the National Institute on Alcohol Abuse and Alcoholism (NIAAA) was only $243 million.[33]

Image advertising, which markets an image rather than the quality of a product, is aggressively used by the alcohol industry and tends to project positive, sexy or humorous images of alcohol.[34]

Several studies suggest that such advertising is appealing to minors, particularly younger children.[35] For example, animation (e.g., Budweiser's talking lizards), animal characters (e.g., Budweiser's Spuds MacKenzie dog), humor (e.g., Budweiser's "Whassup!" commercials) and rock music commonly used in beer advertising campaigns have been shown to have wide appeal among children and young teens.[36] Children ages nine to 11-years old are almost as familiar with the Budweiser advertising campaign's animated lizards and frogs as with Bugs Bunny. Children are more familiar with the Budweiser characters than with Smokey the Bear, the Mighty Morphin Power Rangers and Kellogg's Frosted Flakes' Tony the Tiger.[37]

NBC Breaks Ranks. For almost 50 years, liquor companies had voluntarily agreed not to advertise in the broadcast media. In 1996, the Distilled Spirits Council of the United States decided to end the ban[38] and in December of 2001, General Electric subsidiary NBC announced its intention to advertise hard liquor on television. NBC justifies its position by adopting a set of what it calls "guidelines" to assure the targeting of advertisements to adults;[39] yet these guidelines are a sham and millions of children will be exposed to liquor ads. Ads that are primarily promoting a product, as opposed to those which have some "social responsibility content," will be limited to 9 to 11 p.m. Eastern Standard Time. This means that from 6 to 8 p.m. Pacific Standard Time, young children and teens will be seeing commercials for gin and vodka. NBC will also run hard liquor ads "at other times of day…on a case-by-case basis" during programs for which only 15 percent of the audience is under 21.[40] However, there is an exception to the 15 percent guideline that will permit hard liquor commercials in which the secondary purpose is product promotion, such as those with "branded" (e.g., Smirnoff, Johnny Walker, Tanquery and José Cuervo) social responsibility messages, to be scheduled in any network program where the audience is not composed "primarily of children and teens." This permits broadcasting where 49 percent of the audience consists of minors.

Other guidelines intended to protect children include not using models or actors who are under 30; a prohibition on on-camera consumption and use of alcoholic beverages before or during activities requiring alertness, dexterity and/or sober judgement; and not using any "entertainer or role model who appeals primarily to persons below the legal drinking age." While these restrictions look good on paper, the reality is that it will be up to NBC, with millions of dollars in advertising revenue at stake, to make the determination about whether or not the hard liquor commercials fall within the guidelines. Self-regulation cannot withstand the pressure to produce profits and makes it all the more likely that hard liquor will pollute the public's airways.

In support of the NBC guidelines, the Distilled Spirits Council alleges that alcoholic beverage advertisements do not increase the total numbers of drinkers or encourage young people to drink; rather, they develop brand loyalty among drinkers. Using this logic, the liquor industry claims that it wants to recapture a share of current drinkers lost to the beer and wine industries. By definition, however, this includes underage drinkers since they consume 25 percent of total alcohol consumed in the U.S.

According to a national poll released by the Center for Science in the Public Interest (CSPI), 68 percent of Americans oppose NBC's decision to abandon its voluntary ban on hard liquor advertising and 70 percent agree that it is dangerous to have liquor ads on TV because they introduce young people under the legal drinking age to liquor.[41]

Prior to NBC's decision to accept liquor ads, the three major alcohol industries (beer, wine and distilled spirits) had developed individual child-related guidelines for their advertising practices. These guidelines vary considerably among the industries and demonstrate what concessions they are willing and not willing to make to reduce the appeal of their advertisements to young people. (Appendix D)

The Impact of Advertising. Research suggests that drinking beliefs, knowledge and intentions to drink are positively influenced by awareness of the content of alcohol advertisements on television.[42] Children with more knowledge of beer brands and slogans have more positive beliefs about drinking and more frequently report intending to drink than adults.[43] With greater exposure to beer advertising, children have higher recall of brand cartoon characters and hold more positive beliefs about the social and ritual uses of beer.[44] Some studies suggest that ads particularly appealing to teens include those that make lifestyle appeals (i.e., associate wealth, success, social approval and leisurely life with drinking) or sexual appeals, and those that use sports figures or demonstrate risky behaviors (suggesting that drinking is associated with exciting activities when, in reality, alcohol is a depressant).[45]

A series of studies conducted in New Zealand demonstrated that positive attitudes about alcohol advertisements were related to increased adolescent drinking and intentions to drink.[46] In addition, adolescent males who recalled more alcohol advertisements at age 15 consumed more alcohol at age 18.[47] What is particularly compelling about this body of work is that alcohol advertising in New Zealand is subject to much more stringent regulations than in the U.S.,[48] yet the relationship between advertising and intentions to drink remains significant.

Experts tend to agree that advertising exerts an influence on teen drinking patterns,[49] but more research is needed to determine the precise relationship between alcohol advertising and underage drinking.[50] The need for such research is particularly urgent if one considers that beer, the most extensively advertised alcoholic beverage, is also the least expensive, the most widely available and the top choice of underage drinkers. Perhaps children are getting the message. While product loyalty is certainly a goal of product advertisement, it is an inescapable fact that new recruits to the current drinkers' category must continue if the industry is to survive.

New Alcoholic Beverages Primarily Appeal to Children and Teens. Relatively recent additions to the product line of the alcohol beverage industry is a new breed of sweet-tasting alcoholic beverages, known as "malternatives" or "alcopops" (e.g., Rick's Spiked Lemonade, Tequiza, Hooper's Hooch, Smirnoff Ice, Skyy Blue). These beverages are fruit-flavored, malt-based drinks that come in colorful, child-oriented packaging. The sweetness and flavoring hide the taste of alcohol.

Most alcopop beverages have approximately five to seven percent alcohol by volume, a level that is comparable to beer. These products usually sell for approximately five to seven dollars per six pack. A survey by the Center for Science in the Public Interest (CSPI) found that 41 percent of teens, ages 14 to 18, have tried an alcopop. More than 80 percent of teens say that these beverages are easy to get if they want them.[51] Teens are three times more likely than adults to be familiar with these products and 17- and 18-year-olds are more than twice as likely as adults to have tried them.[52] Twice as many 14- to 16-year olds prefer them over beer or mixed drinks.[53]

> *Booze merchants formulate the products and the design of their labeling and packaging specifically to appeal to people who don't like the taste of alcohol, which includes teenagers. 'Alcopops' are gateway drugs that ease young people into drinking and pave the way to more traditional alcoholic beverages.*[55]
>
> --George A. Hacker, Director
> Center for Science in the Public Interest

In the first six months of 2001, 217 labels for these specialty drinks were approved by the Bureau of Alcohol, Tobacco and Firearms.[54] CSPI has called upon the federal Bureau of Alcohol, Tobacco and Firearms to revoke approved labels for several alcopop drinks and require revisions in the packaging of the products.

Adults Downplay the Role of Advertising in Underage Drinking. Despite the growing empirical link between alcohol advertising and children's alcohol-related beliefs and attitudes, most adults believe that advertising plays only a minor role in the underage-drinking problem. CASA's underage drinking survey found that only one percent of respondents think that alcohol advertising is the most important reason behind adolescent alcohol use. More popular reasons were the peer group, parental influence, emotional problems, teen restlessness, the need to relax or be less inhibited and the influence of the entertainment media.

Almost half (46.8 percent) of those in CASA's survey disagree with the statement that alcohol advertisements prevent us from effectively reducing underage drinking and only 3.5 percent see alcohol advertising as the main barrier to reducing underage drinking. Yet three out of four respondents think that alcohol advertising should be restricted or banned in child-oriented magazines, movies and TV shows, on billboards or as part of a sponsorship of child-oriented community activities or sports.

Raising Public Awareness. Despite the popular view that advertising does not play an important role in underage drinking, consumer, parent, religious, health and prevention organizations have stepped up efforts in the past 20 years to reform the advertising of alcoholic beverages.[56] Such efforts, while largely unsuccessful, did raise awareness of the problem and resulted in Congressional hearings, government policy statements and some efforts by the alcohol, advertising and broadcast industries to promote responsible drinking through public service announcements and other program activities.[57]

Attitude surveys find that between 57 percent and 67 percent of adults generally favor bans on the advertising and marketing of alcohol.[58] However, the relationship between advertising bans and alcohol sales is unclear.[59] When Saskatchewan lifted a 58-year old ban on alcohol advertising in the early 1980s, beer sales did increase, but there was no effect on wine sales or total alcohol sales when compared to a neighboring province.[60] A recent study of data from 20 countries over 26 years, however, indicates that advertising bans could reduce alcohol consumption by as much as eight percent.[61]

Programming. Positive images of alcohol use are not just projected by alcohol advertisers; there also is a significant presence of alcohol messages in movies and on prime-time television shows, although the exact estimates of this prevalence vary widely.[62] Alcohol images also are pervasive in popular movies for children and adults alike. One study of 50 well-known animated movies released between 1937 and

1997 found that two-thirds of the films examined contained images of alcohol and/or tobacco use, with similar frequency rates for good and bad characters.[63] A survey of the most popular video rentals for 1996-1997 revealed the presence of alcohol in 93 percent of the films.[64]

A more recent analysis (including films released up to the year 2000) of 81 G-rated animated films found that nearly half showed characters using or abusing alcohol or tobacco, but that a significant proportion of these do not portray the long-term consequences of tobacco and alcohol use.[65] In 34 percent of the movies, alcohol use was associated with wealth or luxury and in 19 percent of the movies, alcohol use was associated with sexual activity.[66]

Alcohol use on television shows often is depicted without adverse consequences[67] or in association with humor and desirable traits such as wealth, status and professionalism.[68] A recent survey of prime-time television found that the incidence of alcohol use portrayed by underage drinkers is higher than that found in earlier studies, but that adolescent alcohol users were depicted with significantly more negative personality characteristics than were older users.[69] The presentation of alcohol use without consequences or alcohol use linked to other desirable conditions normalizes and encourages use.

The Internet. The Internet is currently available in about 38 percent of U.S. households.[70] Despite the increasing presence of the Internet in children's lives, very little data exist on the impact of Internet advertising on underage drinking patterns. One study of alcohol and the Internet found that, as of 1998, 82 percent of beer Web sites, 72 percent of hard liquor Web sites and 10 percent of wine Web sites used cartoons, motion video, games, contests and branded merchandise with youth appeal.[71]

Obstacle: Parental Attitudes and Behaviors

Permissive attitudes, ambivalence toward underage drinking, limited awareness of children's use of alcohol and failure to educate children about alcohol and its effects all contribute to rather than restrict underage drinking.[72] Many parents send a decidedly mixed message--often condoning alcohol use as a rite of passage.

Permissive Parental Attitudes. CASA's teen survey, *Back to School 1999--National Survey of American Attitudes on Substance Abuse V: Teens and Their Parents*, has shown that parents underestimate the seriousness of teen drinking. Although research indicates that parents are highly concerned about children's substance use, teens are more likely than their parents to think that alcohol and drug use are important problems.[73] In a recent Hazelden Foundation survey, teens rated underage alcohol use as a more serious problem than did parents (50 percent vs. 36 percent).[74] CASA's *Back to School 1999* survey and focus groups conducted by CASA with parents and children suggest that parents are more concerned about their children's use of illicit substances than they are about their children's use of alcohol.[75] Such attitudes obscure the seriousness of the alcohol problem and may implicitly communicate to children that drinking is acceptable, especially relative to using illicit drugs.

Although parents generally are concerned about underage drinking and its potential adverse consequences, only 23 percent of parents explicitly prohibit their children from using alcohol before they reach 21.[76] These attitudes and behaviors shape children's own standards for alcohol use.[77] When parents are tolerant of underage drinking on occasions other than when it is a basic component of a particular cultural event or religious ritual, children may believe it to be acceptable; parents less tolerant of underage drinking have children less inclined to drink.[78] One study found that nondrinking adolescents are much more likely to learn about alcohol use and its adverse effects from their family and school than are drinking adolescents who are more likely to teach themselves about alcohol or learn from a friend.[79]

While some parents may reason that teen drinking under their supervision is safer than teen drinking outside of the home, such permissiveness clearly condones underage drinking.

Parental Ambivalence. Parental ambivalence toward adolescent alcohol use can be seen in whom parents feel should be held accountable for teen alcohol use. CASA's *National Underage Drinking Survey* found that 94 percent of adults favor having commercial establishments that sell alcohol to minors pay a substantial fine, whereas only 62 percent favor having parents of underage drinkers pay a substantial fine.

In CASA's focus groups with adults, many participants expressed the view that parents should be involved in their children's lives and responsible for preventing underage drinking. However, when specific policy recommendations were posed to them--such as holding parents financially liable for damage done by their children while drinking--many parents said that such policies would be unfair, since parents could not be expected to monitor all their children's activities all the time.

> *Kids have told us over and over, 'We laugh at these parents [who allow teenagers to drink in their homes] all the way to the next party. If we can drink in your house, why can't we drink at the park or at the football game under the bleachers?'*[80]
>
> --Bonnie Holmes, Executive Director
> Maryland Underage Drinking Prevention Coalition

Many focus group participants expressed the view that children will drink alcohol no matter what a parent does and parents just have to hope that their children do not drink to excess and cause harm to themselves or others.

Lack of Awareness of Children's Alcohol Use. Many parents have limited knowledge of their own children's use of alcohol and other substances.[81] For example, a CASA survey found that one-third of teens whose parents think they do not drink do in fact do so.[82] Similarly, another study of adolescents who reported regular alcohol use revealed that only 29 percent of parents were aware that their teen used alcohol.[83] If parents are not aware that their children are using or intend to use alcohol, their sense of urgency for discussing the risks of alcohol use lessens, as does parental monitoring of children's alcohol use.

Children and Teens' Limited or Incorrect Knowledge About Alcohol and its Effects. Adolescents lack essential knowledge about alcohol and its effects.[84] Parents who do not communicate openly with their children about alcohol use and its effects allow their children's misconceptions about alcohol to persist. A lack of accurate information can result in dangerous consequences for young people.

One survey of students in grades seven through 12 found that, nationwide, 5.6 million students are unsure of the legal age to purchase alcohol and most students do not know the relative strengths of different alcoholic beverages (e.g., that one shot of whiskey or a five-ounce glass of wine have the same amount of alcohol as a 12-ounce can of beer, or even that wine coolers contain alcohol).[85] A third of all students do not understand the intoxicating effects of alcohol (e.g., more than one-third of students believe that drinking coffee, getting fresh air or taking a cold shower will "sober you up") and many do not know that a person can die from an overdose of alcohol.[86]

Parents Can Be a Positive Force in the Fight Against Underage Drinking. While parental attitudes and behaviors are a part of the problem, they also can be a key part of the solution. Parental monitoring and a close parent-child relationship are important protective factors against underage drinking. Parents who are involved in their children's lives, monitor their children's behaviors and enforce anti-alcohol use rules can help prevent underage drinking.[87] Moreover, just talking to children about alcohol use and its effects, particularly by countering the numerous pro-alcohol messages to which children are repeatedly exposed, can make a difference in reducing underage drinking.[88]

The Combined Effect of Parental Attitudes, Children's Access to Alcohol and the Media

Parental attitudes and behaviors, the relative ease with which children and teens are able to obtain alcohol and pro-alcohol media messages interact to influence underage drinking in several ways. Children learn to drink and to think positively about alcohol through behavioral modeling, where children incorporate parents or media personalities' alcohol-related attitudes and imitate their drinking behavior. Research suggests that children imitate people they care about (e.g., parents), people they admire or with whom they identify (e.g., celebrities) and/or people they aspire to be like (e.g., an accomplished professional on television).[89] Just observing the positive consequences that someone else experiences from using alcohol is enough to influence children's behaviors; children do not have to first experience the positive consequences themselves in order to have positive expectations for alcohol use.[90] Therefore, observing parents drinking or watching likable or admirable people on television get rewarded for consuming alcohol (e.g., they appear to be having more fun) may encourage children to drink.

The extent to which children's expectations of the effects of alcohol use are positive or negative significantly shapes their behavior.[91] These expectations can predict drinking behavior over time and can even predict the transition from nonproblem drinking to problem drinking.[92] A recent study found that teens who perceive greater parental approval of alcohol use were more likely to think that drinking has positive consequences.[93] Research suggests that advertising also plays an influential role in shaping teen expectations of alcohol, particularly because children and teens consume large amounts of media and tend to depend on the media for information about alcohol.[94] The positive media images of alcohol and the absence of negative media messages regarding alcohol use may lead children to believe that alcohol use has primarily positive consequences.

Even without being privy to specific positive and/or negative consequences of alcohol use, children may simply try to imitate the behavior of influential or important figures in their lives. To the extent that children imitate their parents' behavior, many are at heightened risk. Recent data suggests that about one in four children is exposed to familial alcohol abuse or dependence.[95] A family history of alcohol abuse is strongly related to children's alcohol consumption[96]

> *If you're going to hold anybody responsible for providing alcohol to minors in a private setting, then it should include the parents...parents should be held just as responsible as the guy down the street that provides it.*
>
> --Male With Underage Child
> CASA Focus Group
>
> *Parents can't be held accountable for their children. As much as we'd like to be, as parents, we can't be responsible for them 24/7. We just can't.*
>
> --Female With Underage Child
> CASA Focus Group

Another means by which parents can influence underage drinking is through their reactions to and interpretations of alcohol advertisements in the presence of their children. Because children's knowledge about alcohol is often limited or inaccurate,[97] parents can play a decidedly important role in influencing how their children interpret alcohol images and messages portrayed in the media. For example, one study found that children of parents who imitate or verbally condone pro-alcohol media message are more likely to have positive expectations for the effects of alcohol use.[98] The converse is also true: if a parent puts in perspective alcohol messages in the media, children are less likely to view alcohol and its effects positively.[99]

Chapter III
Notes

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Chapter IV
Strategies to Reduce Underage Drinking

Various strategies have been tried and proposed to reduce underage drinking: reducing availability of alcohol to minors, reducing demand for alcohol among children, or providing treatment to those who have developed alcohol-related problems. Strategies to reduce availability include attempts to restrict the access of children and teens to alcohol through measures such as mandated responsible beverage service training, decoy operations and stiff penalties for commercial establishments that serve or sell alcohol to underage drinkers. Strategies to reduce demand for alcohol include attempts to reduce children's attraction to alcohol, bolster their resistance to pressures to use alcohol and provide realistic alternatives to alcohol use. These approaches generally take the form of school and family-based interventions, media advocacy and warning labels. The nature of these policies and the manner in which they are implemented and enforced vary substantially among states and communities. Evaluations of their effectiveness are limited. Strategies to reduce underage drinking through treatment programs are limited by the scarcity of age-appropriate, accessible and affordable treatment options for children and teens.

The CASA National Underage Drinking Survey

CASA's survey presented 900 respondents with a series of policy options for reducing underage drinking and asked whether they would be in favor of having each of the policies implemented in their communities. The design of the CASA survey is unique in that for the majority of the policy options, every 300 respondents were presented with a slightly different version of the policy to determine how variations in the policy might influence support for it. Analyses were conducted examining overall support for each policy option and its differing versions. In addition, CASA examined how support varied with respondent characteristics such as age, sex, income, political affiliation and attitudes toward underage drinking. Understanding how support for a policy varies with the wording or details of the policy option is important for designing strategies to effectively market the policy to the public. Understanding how support for a policy option varies by personal and demographic characteristics is important for effectively targeting marketing initiatives to particular groups.

The survey design was based on an extensive review of available research and on responses from focus groups that CASA conducted.

Main Themes from CASA Focus Groups

- Enforcement of underage drinking laws is too lax.
- The primary responsibility for reducing underage drinking rests with parents and children; public policy can only have limited effects on the problem.
- Many underage drinking policies end up targeting the wrong groups, creating hardships for drinkers who are of age and alcohol establishments who become the targets of sting operations.
- There should be no government control over the drinking that occurs in private homes.

CASA's analyses of the survey and focus group findings reveal that the public generally agrees that it is preferable to enforce existing policies related to underage drinking (49.9 percent) than to implement new ones (25.4 percent) or impose more severe penalties on violators of current regulations (24.7 percent). This attitude is particularly salient among older Americans and those who affiliate politically as Republican (vs. Democratic). However, efforts to bolster existing underage drinking policies can prove difficult because these policies vary from state to state and levels of enforcement vary from neighborhood to neighborhood.[1]

Policy strategies that the majority of adults endorse include restricting children's access to alcohol, zero-tolerance laws and holding parents responsible for their children's drinking. Adults also support imposing fines, community service and license revocation for teens caught drinking alcoholic beverages.

> *Rather than make new laws, they should enforce the ones we already have.*
>
> --Male Without Underage Child
> CASA Focus Group

CASA's survey revealed consistent patterns of support for the various policies based on respondents' personal and demographic characteristics. Consistent with previous research,[2] women are more supportive than men of policy approaches designed to reduce underage drinking; individuals who drink infrequently also are more supportive than are those who drink often. Adults with lower incomes and less education favor tougher underage drinking policies to a greater extent than those with higher incomes and more education.

Policies to Reduce Availability

Policies designed to reduce underage drinking by reducing availability can be divided into four main categories: taxation; reducing commercial availability; reducing social/public availability; and restricting youth possession.[3] Those that relate to restricting commercial sales to minors tend to receive the most public support. Less public support is given for policies that attempt to control teen access to alcohol in ways that may interfere with adults' access.[4]

Taxation

The incidence of frequent and heavy alcohol consumption among the general population appears to decline as the price of alcohol goes up.[5] Particularly for younger drinkers, increases in the purchase price of alcohol limits its availability to those with restricted funds. One study, using data from the 1980s, found that increases in beer taxes could substantially reduce the frequency of consumption among high school seniors.[6] More recent research[*] indicates that increases in taxes on hard liquor may reduce consumption as well.[7]

> *In Massachusetts, alcohol purchased in taverns and restaurants is subject to a five percent sales tax whereas alcohol bought in a package store is exempt. A proposal in the Massachusetts legislature would remove the exemption for packaged liquor sales to raise revenue for a comprehensive state program for the prevention and treatment of addiction. The measure, introduced by Senator Marian Walsh, would double the state's current alcohol-tax revenue and allocate $57 million in new revenues to fund a state addiction prevention and treatment program.*[8]

There has been no increase in the federal excise tax on alcohol since 1991, which, among other increases, doubled the tax on beer from $9 to $18 per gallon (approximately 33 cents per six-pack). Following this increase, overall per capita alcohol consumption dropped by 6.1 percent.[9] Adjusted for inflation, the real rate of tax has been decreasing since 1951.[10]

Although it seems that increased alcohol taxes may deter alcohol consumption by teens, public support for this strategy is mixed with stronger support for other tactics, including reducing teen access to alcohol. CASA's survey demonstrated that half (54.1 percent) of the respondents supported increasing alcohol taxes as a means of reducing underage drinking.

Among the 45.9 percent who did not support increasing alcohol taxes, over half (54.2 percent) felt that such action would not address the problem of underage drinking and many (20.3 percent) felt that increased alcohol taxes would target or punish the wrong party. Fewer respondents explained their lack of support in terms of the policy's infringement on adults' rights to drink alcohol (12.7 percent) or in terms of the cost of enforcement (5.1 percent).

Support for increasing alcohol taxes was greater among females (59.3 percent) than males (49.1 percent); among those with less education (60.9 percent among those with a high school degree or less vs. 49.6 percent among those with more than a high school degree); among those with lower incomes (less than $30,000: 62.9 percent; $30,000 to $75,000: 52 percent; more than $75,000: 43.3 percent); among those who drink alcohol less frequently (68.1 percent) than more frequently (19.2 percent); and among those who report being very concerned with the problem of underage drinking (65.5 percent) than those not at all concerned with the problem (27.4 percent).[†]

> *If you increase the taxes, it's going to hurt the people that do drink. I mean, I don't feel like I should have to pay for it, or that it should be passed on to me just because they can't control who they sell liquor to.*
>
> --Male Without Underage Child
> CASA Focus Group

CASA's survey presented three versions of an alcohol taxation policy that specified where the tax revenue should be allocated: (1) to underage drinking prevention and treatment programs; (2) to general government expenses; and (3) to lowering other universal taxes, such as income tax. More respondents favored allocating the tax revenue to treatment and prevention (62.8 percent) than to lowering other universal taxes (52.6 percent) or to general government expenses (46.9 percent).[‡]

Reducing Commercial Availability of Alcohol

Strategies focused on reducing the commercial availability of alcohol are aimed at the practices of alcohol retailers.[11] Responsible sales of alcohol are important not only for deterring underage drinking, but also for protecting retailers from the financial and, in some cases, criminal consequences of selling alcohol to teens.

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[*] Only including adults.

[†] Unless otherwise indicated, each of these differences as well as the others reported in this chapter is statistically significant at the $p<.05$ level.

[‡] Public support for version 1 was significantly greater than support for versions 2 or 3 ($p<.05$).

The fundamental commercial strategy to limit underage drinking is to ban commercial sales and gifts of alcohol to minors,[12] including prohibiting the sale of alcohol to minors even if accompanied by an adult. Currently commercial sales of alcohol to minors are banned in all states, but exceptions are made in certain states when a minor is accompanied by an adult or when a minor has written authorization from a parent.[13] A complete ban on sales and gifts to minors would help eliminate these disparities and eliminate the incentive for teens to cross state lines to obtain alcohol (and possibly drive home while under the influence). Another approach is to restrict minors' access to establishments that sell alcohol.[14] Although most states do restrict access to minors at nightclubs and bars, such restrictions are harder to enforce in restaurants.[15]

Undercover Attempts to Enforce Underage Drinking Restrictions. To deter sales to underage drinkers and ensure compliance by alcohol retailers, some cities pursue various undercover strategies, including random compliance checks and "shoulder tap" and "cops in shops" programs.

"Compliance checks" involve having law enforcement officials employ an underage buyer as a deputy (working undercover) to test retailers' compliance with laws regarding the sale of alcohol to minors.[16] In one examination of this type of sting operation, 46 percent of underage purchase attempts were successful.[17] Evaluations of such programs have demonstrated that compliance check strategies do reduce sales to underage police deputies; in Denver, Colorado, sales were reduced from 58 percent to 26 percent in 10 months.[18] The use of compliance checks is increasingly common nationwide.[19]

"Shoulder tap" enforcement programs aim to catch minors attempting to obtain alcohol by asking strangers to purchase alcohol for them.[20] Similar to compliance checks, these enforcement programs employ young people to approach an adult outside alcohol establishments and ask the adult to buy alcohol for them.[21] Although these activities usually occur outside alcohol establishments, if a retailer has witnessed such a transaction or believes it has transpired, he or she is required to report the activity and deny sale to the adult.[22]

> *You can make a pretty good living down on the west end of town outside a bar [buying alcohol for underage drinkers].*
>
> --Male Without Underage Child
> CASA Focus Group

"Cops in Shops" programs target the individual violators, specifically minors, who try to purchase alcohol.[23] Police officers are placed in retail establishments, posing as an employee or customer, and wait to arrest minors who attempt to purchase alcohol.[24] These programs have not been evaluated formally, but advocates argue that they may help reduce adolescent alcohol use if they are enforced in conjunction with other policy measures, such as "shoulder tap" programs.[25]

CASA presented survey respondents with several strategies that involve these types of undercover operations aimed at helping to reduce underage drinking. The majority of respondents (72.6 percent) were in favor of policies that involve undercover attempts to enforce underage drinking restrictions. Support for undercover approaches was greater among females (77.2 percent) than among males (68 percent); among those with less education (78.1 percent among those with a high school degree or less vs. 69.2 percent among those with more than a high school degree); among those who define their political ideology as conservative (77.4 percent) rather than liberal (69.6 percent) or moderate (68.5 percent); and among respondents who seldom or never drink (78.3 percent) than among frequent drinkers (53.8 percent).

Three versions of this policy were presented to respondents: "compliance checks, "shoulder taps" and "cops in shops. Among the three versions of the policy, "compliance checks" received the strongest support (78.1 percent) compared to "cops in shops" (70.6 percent) and "shoulder taps" (69.1 percent) programs.[*]

Limiting Numbers, Locations and Hours of Alcohol Establishments. Many states and localities have laws restricting where alcohol sales are permitted, including the number of alcohol outlets permitted in certain geographic areas.[26] Research strongly suggests that increased numbers of alcohol outlets per capita result in increased rates of alcohol consumption and alcohol-related problems.[27] Because of this, William J. Bennett, former Director of the Office of National Drug Control Policy, and others argue that the concentration of alcohol establishments, especially in poor and urban areas, should be reduced.[28] Another common restriction is the creation of "buffer zones," or specified distances between alcohol outlets and children's facilities, such as playgrounds and schools, to make it more difficult for children and teens to obtain alcohol.[29] Some researchers and policymakers also have proposed restricting the hours and days when alcohol may be sold as a means of reducing underage drinking. However, studies that have analyzed this approach have not been able to attain conclusive evidence of its effectiveness.[30]

CASA's survey assessed the public's attitudes toward various strategies that would limit the numbers, locations and hours of alcohol establishments. Overall, 64.8 percent of respondents were in favor of such policies. Support for placing limits on alcohol establishments was greater among older respondents (ages 65 and older: 77 percent; ages 35 to 64: 64.2 percent; ages 21 to 34: 57.6 percent); among females (72.5 percent) than among males (57 percent); among African-Americans (88.7 percent) than among Latinos (62.5 percent) or whites (62.5 percent); among those with less education (70.3 percent among those with a high school degree or less vs. 61.4 percent among those with more than a high school degree); among those with lower incomes (less than $30,000: 77.1 percent; $30,000 to $75,000: 62.1 percent; more than $75,000: 48.9 percent); and among respondents who seldom or never drink (76.8 percent) than among frequent drinkers (34.6 percent). Thirty percent of respondents who placed primary responsibility for the underage drinking problem on alcohol-selling establishments did not support the policy option of limiting access to them.

> *Kids like to do what grownups do; when they see people constantly going in and out of liquor stores, eventually they're going to want to get in there and get some of the goods too. I really have a problem with all these liquor stores in poor neighborhoods.*
>
> --Male Without Underage Child
> CASA Focus Group

Three versions of policies relating to limiting access to commercial alcohol establishments were presented to respondents: (1) restricting the number of alcohol outlets that can exist in any one neighborhood; (2) creating "buffer zones" to regulate the distance of alcohol establishments from areas where children are likely to be present; and (3) limiting the hours or days of the week during which alcohol can be sold. Creating buffer zones received more support from survey respondents (83 percent) than limiting the number of establishments that can exist in a certain area (60 percent) or limiting the hours or days of the week when alcohol can be sold (51 percent).

Limiting Home Delivery of Alcohol. Both buying alcohol over the Internet and ordering alcohol for home delivery presently can occur without presenting evidence that the individual purchasing the alcohol is of-age. Few studies have documented the prevalence of these methods of acquiring alcohol among children, but those that have been conducted demonstrate that younger teens are more likely to use these services than are older teens.[31]

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[*] Support for version 1 was significantly higher than support for versions 2 or 3. This difference is statistically significant at the $p<.05$ level.

> *Alcohol should never be sold over the Internet; people can just stay at home and get drunk and never have to leave, not even to buy liquor.*
>
> --Female Without Underage Child
> CASA Focus Group

One study found that 10 percent of the twelfth graders and 7.3 percent of the 18- to 20-year olds surveyed reported purchasing home delivery of alcohol within the past year.[32] Proposed methods for regulating home delivery of alcohol include having deliverers obtain and record identification information from purchasers, such as a driver's license, and having a purchaser sign a statement affirming that he or she is 21 or older.[33]

CASA's survey demonstrated that the majority of respondents (85.2 percent) favored restrictions on the home delivery of alcohol. Support for restrictions on home delivery was slightly greater among females (87.6 percent) than among males (82.8 percent); among those with less education (89 percent among those with a high school degree or less vs. 82.8 percent among those with more than a high school degree); among those who earn less (less than $75,000: 88 percent; more than $75,000: 72.3 percent); and among respondents who seldom or never drink (91.3 percent) than among frequent drinkers (63 percent).

> *I think they should be required to check the ID of the person that it's delivered to and make sure that they have the right ID and [the buyers] are of age to drink alcohol.*
>
> --Male With Underage Child
> CASA Focus Group

Among those generally in favor of placing restrictions on home delivery of alcohol, 68.6 percent believed that such delivery should be completely banned. Among those who think there should be restrictions but do not think that delivery should be completely banned, the majority (96.6 percent) believed that home delivery of alcohol should be permitted only if package delivery personnel check for proper identification from the recipient of the delivery.

Supporting Commercial Establishments in the Prevention of Underage Alcohol Sales. Certain policy options or strategies are designed to support establishments in their efforts to eliminate underage consumption. Requiring servers and sellers of alcohol to participate in responsible beverage service training programs is one way to help enforce the underage drinking laws as well as protect the server/seller from liability. Program curriculum requirements of this nature often include staff notification and acknowledgement of legal responsibility and consequences of violation; identification check procedures for individuals who appear to be underage; and internal compliance checks, where store management conducts checks to ensure compliance with regulations.[34] In certain states, retailers who participate in these types of programs avoid legal responsibility for harm to underage patrons who are served alcohol illegally.[35] Although evaluations of the effectiveness of responsible beverage service training have produced inconclusive results, there has been strong evidence that they are effective in curbing sales to minors when properly enforced.[36]

> *It's [responsible beverage service training] like having to be certified for CPR; it's a life-saving technique.*
>
> --Female With Underage Child
> CASA Focus Group

Another strategy is to require servers and sellers to be at least 21-years old.[37] Much research has demonstrated that underage sellers and servers have great difficulty refusing sales to underage buyers.[38] Often, this is because they are unable to judge the buyer's age, are friends with the buyer or feel pressured by the buyer to sell the alcohol.[39] Some jurisdictions combine this policy with responsible beverage server training initiatives.[40]

> *I think requiring the servers to be 21 is a good idea; it would eliminate a source [of alcohol] that a lot of kids have.*
>
> --Male With Underage Child
> CASA Focus Group
>
> *If the server is 16 and an 18-year-old customer comes in, the server will have a hard time saying no; he might be intimidated.*
>
> --Male With Underage Child
> CASA Focus Group
>
> *I think it's ludicrous when there's a 19-year-old server at a grocery store and I get a six-pack [of beer], and she can't check it through.*
>
> --Male Without Underage Child
> CASA Focus Group

A third strategy for helping servers avoid sales to minors involves installing and using driver's license scanners, which help servers detect false identification documents.[41] The use of such scanners makes the judgement of age less subjective and allows servers to refuse sales without feeling responsible to the underage patrons for prohibiting them from purchasing alcohol.

Consequences of Commercial Violations. All states impose some form of criminal and administrative penalties for the illegal sale of alcohol to minors, although the types of sanctions vary dramatically.[42] Sanctions include administrative penalties that increase in the severity of criminal sanctions and civil liability with each additional offense.[43]

Administrative penalties that either are currently in effect or that have been proposed include withdrawing establishments' liquor licenses, imposing fines[44] and holding responsible alcohol companies who knowingly distribute their products to outlets that sell to minors.[45] Administrative penalties can be very effective because they can lead to a reduction in profits for businesses and may even result in the complete loss of business.[46]

Criminal penalties tend to focus on the individual who conducts the illegal sale and include fines, probation and even jail.[47] For instance, in Pennsylvania, furnishing or selling alcohol to a minor is punishable by a fine of $1,000 to $2,500 and up to one year in jail.[48] Exceptions are made for alcohol given to minors as part of a religious ceremony.

> *Financial consequences are probably the best avenue, hit them in the pocketbook and hit them hard..., instead of an insignificant fine...maybe even make it a percentage of their yearly sales. I mean something where it's a substantial hit, and then if they do reopen or continue to sell [alcohol], they'll enforce the laws after that.*
>
> --Male With Underage Child
> CASA Focus Group

Civil liability, or "dram shop" liability, holds adults who provide alcohol to minors legally responsible for any harm caused to the minor due to their alcohol use.[49] For example, in California, civil liability is imposed only if the retailer sells/serves alcohol to an "obviously intoxicated" minor.[*] [50] Civil liability varies by state and cannot be imposed at the local level. Not all states allow this sanction.[51] While formal evaluations of this strategy have not been conducted, in some states the dram shop liability law has had a demonstrated effect on impaired driving accidents.[52] Texas experienced a 6.5 percent decrease in auto accidents after a 1983 server liability case was filed there.[53]

CASA's survey indicates that more than 84 percent of respondents favor imposing penalties on establishments that sell alcohol to minors. Of respondents who thought that alcohol establishments were primarily responsible for the problem of underage drinking, 86.4 percent supported holding them liable for sales to children and teens. Even among individuals who strongly disagreed with the idea that policy can help change underage drinking, 74.6 percent supported penalizing alcohol establishments that sell to minors.

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[*] Determination made by the licensee. Definition of "obviously intoxicated" defined by California law as what a reasonable person would believe based on commonly known outward manifestations of intoxication.

Support for the general policy of imposing penalties on commercial establishments that sell alcohol to minors was greater among females (88.7 percent) than among males (80.3 percent); among those with lower incomes (less than $30,000: 89.3 percent; $30,000 to $75,000: 83.4 percent; more than $75,000: 78 percent); and among respondents who seldom or never drink (88.5 percent) than among frequent drinkers (77.8 percent).

Three versions of the strategy of imposing penalties on alcohol establishments were presented to survey participants: (1) suspend or withdraw the alcohol establishment's liquor license; (2) impose criminal liability on the alcohol establishment, requiring probation or jail time; and (3) impose civil liability, allowing lawsuits to be filed against the alcohol establishment for damage caused by the minor while under the influence. Suspending or withdrawing the alcohol establishment's liquor license received more support (88.5 percent), than imposing civil (83.1 percent) or criminal liability (82 percent).

Reducing Social/Public Availability of Alcohol

Alcohol Restriction in Private Settings. Restrictions on furnishing alcohol to minors in certain private settings have been proposed as a viable means of reducing underage drinking. Although all states have some type of law that restricts a minor's ability to obtain alcohol from commercial sources, most do provide exceptions for alcohol served by parents, spouses and guardians to minors.[54] These exceptions stem from the states' reluctance to dictate the actions of individuals in private dwellings and within parent-child or marital relationships.[55] Because of these exceptions, however, underage drinking is tolerated in some situations. If states do restrict underage drinking at private parties, in public places or private residences, they send a much stronger message that underage drinking is not tolerated.[56]

> *If you're going to hold anybody responsible for providing alcohol to minors in a private setting, then it should include the parents...I feel like the parents should be held just as responsible as the guy down the street that provides it.*
>
> --Male With Underage Child
> CASA Focus Group
>
> *I don't know how you could regulate what somebody does within the confines of their own home. And I think that it's a very touchy issue... I mean if I, as a parent, choose to allow my children to drink in my home that's my prerogative.*
>
> --Female Without Underage Child
> CASA Focus Group
>
> *Parents shouldn't give their own kids liquor in the home or anywhere; it's breaking the law.*
>
> --Male With Underage Child
> CASA Focus Group

Mandating keg registrations has been proposed as a measure to reduce underage drinking at parties. If kegs, which provide large amounts of beer at a low cost, are tagged and linked to specific buyer information (name, address, drivers license, etc.), then they can be traced if they are confiscated at parties where underage drinking occurs. Ultimately, the buyer can be held responsible[57] and the publicity that may ensue may help reduce underage drinking in communities where this strategy has been enforced.[58]

CASA's survey found that, overall, 71.2 percent of adults support mandatory keg registration. Support for mandatory keg registration was greater among older respondents (ages 65 and older: 83.1 percent; ages 35 to 64: 70 percent; ages 21 to 34: 66.2 percent); among females (78 percent) than among males (64.6 percent); among those with less education (79.1 percent among those with a high school degree or less vs. 65.9 percent among those with more than a high school degree); among those with lower incomes (less than $30,000: 77.2 percent; $30,000 to $75,000: 70.2 percent; more than $75,000: 60.7 percent); and among respondents who seldom or never drink (82.1 percent) than among frequent drinkers (40 percent).

Alcohol Restriction in Public Settings. Alcohol restriction in public places is more easily mandated than in private dwellings. Restricting alcohol sales at child- and family-oriented events can help prevent underage drinking.[59] Alcohol use can be controlled in parks, sports arenas, recreation facilities, beaches, parking lots and other publicly owned or publicly accessible locations.[60] Exceptions to bans on alcohol in these areas can be made for private gatherings through the issuance of local permits.[61] The effectiveness of such restrictions depends in large part on communities' attitudes toward alcohol use and vary with the level of support communities have for ensuring responsible drinking practices.[62]

Sixty-four percent of respondents in CASA's survey supported policies aimed at restricting access to alcohol in public areas. Support for this general policy option was greater among older respondents (ages 65 and older: 77.6 percent; ages 35 to 64: 64.8 percent; ages 21 to 34: 52.3 percent); among females (71.9 percent) than among males (55.1 percent); among those with less education (70.7 percent among those with a high school degree or less vs. 58.9 percent among those with more than a high school degree); among those with a conservative political ideology (68.5 percent) than a moderate (58 percent) or liberal (60.3 percent) political ideology; among those with lower incomes (less than $30,000: 73.3 percent; $30,000 to $75,000: 61.5 percent; more than $75,000: 45.3 percent); and among respondents who seldom or never drink (77.4 percent) than among frequent drinkers (33.3 percent).

> *If you're going to sell alcohol at community events and ball games and things like that, the message that you're sending to the next generation is that it's okay. It's the thing to do.*
>
> --Male With Underage Child
> CASA Focus Group

Respondents were presented with three versions of the policy strategy aimed at restricting public access to alcohol: prohibiting sales and drinking of alcohol at community events; prohibiting sales and drinking of alcohol in public places, such as beaches or parks; and prohibiting sales and drinking of alcohol at all community events attended by children. Prohibiting alcohol at community events received less support (54.8 percent) than prohibiting alcohol in public places such as beaches and parks (70.1 percent) or prohibiting alcohol at all community events attended by children (65.6 percent).[*]

Monitoring Social and Public Availability. Strategies to ensure enforcement of regulations pertaining to social/public availability of alcohol address a youngster's ability to purchase and/or imbibe alcohol in social/public settings. One strategy for monitoring social/public availability is to have communities enact teen party ordinances. These ordinances might include restricting the number of individuals under 21 allowed to gather at a private residence where one individual has alcohol, or "noisy assembly" ordinances that would allow police to investigate teen parties.[63]

Some state laws limit police authority in investigating a home where underage drinking is suspected. Teen party or noisy assembly ordinances give law enforcement officials legal standing to investigate parties where underage drinking is reasonably suspected.[64] Such ordinances have been enacted with some success in states such as Oregon, where arrests of minors for possession of alcohol increased from 60 to 1,000 in a year.[65] Restrictions on teen parties also could apply to motels and hotels, which are common sites for many graduation and prom parties where underage drinking often occurs.[66] Hotels and could be held liable for knowingly or negligently renting rooms for teen parties where alcohol is available.[67]

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[*] Support for version 1 was significantly lower than support for versions 2 or 3. This difference is statistically significant at the p<.05 level.

Parents can't be responsible for kids all the time, unless there's support from laws and society.

--Female With Underage Child
CASA Focus Group

Consequences of Noncompliance. Penalties for illegally providing and obtaining alcohol in social or public (noncommercial) places are similar in design to penalties for commercial violations: civil and criminal liability. Civil penalties include fines or fees imposed on adults who allow parties to take place in homes where underage drinking is occurring.[68] Criminal penalties may include stiffer fines and possible jail time if injuries and serious disruptions occur as a result of an adult's provision of alcohol to a minor.[69]

Although imposing civil liability on adults who provide alcohol to children is still rare, some states are turning to this method to hold parents liable for underage drinking in their homes. Minnesota, for example, enacted a law that would allow third parties to sue adults who provide alcohol to minors that resulted in any crime caused by these minors.[70] Advocates of such policies believe that continued efforts must be made to prevent children and teens from obtaining alcohol illegally and more stringent methods must be developed to restrict kids from drinking in private homes.

CASA's survey found that more than 91 percent of respondents favor holding liable individuals who provide alcohol to minors. Support was greater among females (95.3 percent) than among males (88.2 percent); among those with a conservative political ideology (94.3 percent) than a moderate (90.3 percent) or liberal (87.9 percent) political ideology; and among respondents who seldom or never drink (95.1 percent) than among frequent drinkers (66.7 percent).

Three versions of this policy strategy were presented to survey respondents: hold liable individuals over 21 who provide alcohol to an underage friend, individuals over 21 who provide alcohol to an underage sibling, and individuals over 21 who lend their identification card to a minor. Holding siblings of underage drinkers liable received less support (83.9 percent) than holding friends liable (95 percent) or holding those liable who lend their identification cards to teens (96.3 percent).*

The CASA survey also explored in greater detail how the public felt about parents' roles in underage drinking and the extent to which parents should be held responsible for teen alcohol use. Almost three-quarters (76.1 percent) of respondents were in favor of holding parents responsible for their children's alcohol use.

Three different ways of describing the conditions under which parents should be held responsible were presented to survey respondents: parents should be held responsible only if they knew the child was drinking; regardless of whether or not they knew the child was drinking; and for the use of alcohol by any child (their own or not their own) who obtains alcohol from their home with their knowledge. The notion of holding parents responsible even if they were unaware of their children's drinking received the least support (56 percent) compared to the strong support given to the first (82.8 percent) and third (88.7) versions.†

Seven out of 10 respondents (72.4 percent) agree that penalties should be imposed on parents whose children engage in underage drinking. Support for imposing penalties on parents whose children engage in underage drinking was greater among females (77.6 percent) than among males (67.1 percent); among those who affiliate with the Republican Party (79.1 percent) than the Democratic Party (69 percent); and among respondents who seldom or never drink (77 percent) than among frequent drinkers (51.9 percent).

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* Support for version 2 was significantly lower than support for versions 1 or 3. This difference is statistically significant at the $p<.05$ level.

† Support for version 2 was significantly lower than support for versions 1 or 3. This difference is statistically significant at the $p<.05$ level.

Three versions of the policy were presented to respondents: persons harmed by a minor who had been drinking at home should be allowed to sue the parents of the minor for the harm or damage; parents caught providing alcohol to underage drinkers, whether to their own children or other people's children, should be required to spend time in jail; and parents caught providing alcohol to underage drinkers (whether to their own children or to other people's children) should be required to perform community service. About 85 percent agreed that parents should be required to perform community service for providing alcohol to underage drinkers, while only 70 percent favored jail time for the same offense. Approximately 60 percent agreed that parents should be held financially responsible for the actions of a minor who received alcohol from a parent.

Eliminating Underage Possession of Alcohol

Another approach to reducing underage drinking is to implement and enforce regulations that direct actions toward children who are in possession of alcohol. One strategy is to completely ban the possession (not just the use) of alcohol by minors in public and private locations, with the possible exception of private residences where parents or other adult relatives of the minor are present.[71]

> *It's clear that the move in the age to 21 is the most successful effort that we've had in the last couple of decades to reduce drinking* [by youngsters].
>
> --Alexander Wagenaar, Ph.D., Professor
> University of Michigan, Ann Arbor

Zero-Tolerance Policies. The zero-tolerance policy ensures that underage drivers will face severe penalties if they are caught drinking and driving. If they possess a blood alcohol content (BAC) level over .00, .01 or .02, depending on the state, they will be found guilty of impaired driving.[72] In 1995, Congress declared that states that did not have a underage BAC limit of 0.02 or less risked losing five percent of federal highway funds for that year and 10 percent of highway funds each year until compliance.[73] Zero-tolerance laws related to drinking and driving have since been passed in all 50 states.[74] These laws establish BAC limits while driving that are different for minors than adults, for whom BAC is .08 across the nation.[75] While research is limited on whether zero-tolerance laws reduce underage consumption, these laws are associated with reductions in alcohol-related traffic accidents by as much as 50 percent.[76] Youth drinking and driving declined as much as 23 percent in certain states after the implementation of lower BAC policies.[77]

Three-quarters of respondents to CASA's survey were in favor of creating nationally uniform zero-tolerance laws that consider drivers under the age of 21 with *any* blood alcohol content to be driving under the influence of alcohol. Support for a uniform zero-tolerance policy for underage drinking across all states was stronger among older respondents (ages 65 and older: 89.8 percent; ages 35 to 64: 75.1 percent; ages 21 to 34: 76.7 percent); among females (86.6 percent) than among males (70 percent); among those with less education (88.5 percent among those with a high school degree or less vs. 71.3 percent among those with more than a high school degree); among those with a conservative political ideology (83 percent) than a moderate (74.1 percent) or liberal (73.5 percent) political ideology; among those with lower incomes (less than $30,000: 85.2 percent; $30,000 to $75,000: 76.7 percent; more than $75,000: 63.8 percent); and among respondents who seldom or never drink (88.5 percent) than among frequent drinkers (42.3 percent).

False Identifications. Another proposed method for deterring teen possession is to strictly enforce bans on the possession and use of false identification.[78] One study found that 36 percent of high school students have used some form of false identification.[79] Although no comprehensive evaluation has examined a ban on false identification in relation to teen alcohol consumption, it is reasonable to assume that such a restriction would help reduce teen access to alcohol.[80]

> *Using 21st century technology and a swipe of the hand, police and investigators from the DC Alcoholic Beverage Regulation Administration have turned to a new tool to try to eradicate underage drinking in bars, restaurants and nightclubs.*
>
> *District officials unveiled a hand-held device ... that allows inspectors to check the validity of driver's licenses and other identification cards used as proof of age. The Lavinna L100 is slightly larger than a Palm Pilot, runs on a six-hour battery and lets investigators float through clubs to check on suspected scofflaws.*[81]

Methods of Enforcement for Restricting Teen Possession. There is some debate as to whether minimum drinking age laws (MDALs) result in the decrease of alcohol consumption or whether they just address some of its consequences (i.e., drinking and driving).[82] Advocates for MDALs argue that underage alcohol consumption and heavy drinking have been reduced because of MDALs.[83]

Consequences of Noncompliance. Administrative penalties for noncompliance take several forms. In some instances, schools that are notified of alcohol violations by a student may impose sanctions such as suspensions.[84] Other penalties include driver's license revocations for violators of the zero-tolerance laws.[85] Fines, community service and mandatory attendance at an alcohol education program are other options for penalizing noncompliance. In California, underage drinking is punishable by a fine ranging from $250 to $500 and 24- to 48-hours of community service.[86]

> *They [teens] will be thinking, 'Oh gosh, I want to be cool and fit in but no, I think I'll say no [to drinking] because I don't want to lose my license.*
>
> --Male With Underage Child
> CASA Focus Group

CASA's survey found that 67 percent of adults favor imposing fines on underage drinkers. When asked if they believed that punishing children who are caught drinking discourages teens from attempting to get alcohol, the majority of survey respondents (75.4 percent) agreed. Women were more likely to agree (73.1 percent) than men (64.8 percent). Individuals with children under the age of 21 were more likely to agree (72.5 percent) than individuals without children under 21 (65.4 percent).

> *Community service is good; they should go to a substance abuse program and work with recovering alcoholics.*
>
> --Female With Underage Child
> CASA Focus Group
>
> *Kids should have to go to jails or hospitals if caught drinking to see the consequences it has on people. They need to see alcoholics at their worst; not when they're comical drunk, but when they're really suffering from withdrawal.*
>
> --Female Without Underage Child
> CASA Focus Group

Nine in 10 respondents (87.5 percent) who view alcohol use by adults as the primary influence on underage drinking agree that punishing teens will deter underage drinking. In contrast, only 56.5 percent of those who view teen restlessness as the primary influence on underage drinking think that stiffer penalties for teens will make a difference.

Respondents were presented with three versions of a policy option of imposing penalties on underage drinkers. Over 72 percent of all respondents supported some form of penalty for underage drinkers. Support was stronger among females (96.6 percent) than among males (90.6 percent) and among respondents who seldom or never drink (94.5 percent) than among frequent drinkers (88.9 percent).

The three versions of the general policy of imposing penalties on children who engage in underage drinking were: minors caught drinking alcohol should have to perform community service; have their licenses suspended or revoked; or be suspended from school. Least support was given to the school suspension option (34.4 percent) compared to the overwhelming support for license revocation (92.6 percent) and the complete support for requiring community service (100 percent).

Reducing Demand: Restricting Alcohol Advertising

Limiting alcohol advertising is another policy measure that can help reduce underage drinking. Controls on alcohol advertising, such as on billboards, city buses and other public areas, have been implemented in Los Angeles and Baltimore and many other cities are following their lead.[87] Such bans must be done in a manner consistent with preserving First Amendment rights. Advertising restrictions that have been upheld in the courts are those that limit the time, place or manner of advertising rather than imposing blanket prohibitions. Other forms of advertising that may be used to deter drinking include mandatory warning labels on alcoholic beverages and media advocacy that supports local efforts to prevent underage drinking.[88]

> *I see a lot of ads [at concerts]; that's just kind of setting them [kids] up to think that that's what they need to be shooting for; that's the glamorous thing.*
>
> --Male With Underage Child
> CASA Focus Group

Research suggests that restricting alcohol ads on television also would be effective in reducing underage drinking.[89] However, there is little federal or state regulation of alcohol advertising and the voluntary alcohol industry standards are often lax and unenforceable.[90] The various alcohol beverage industries have adopted different practices related to alcohol advertising. Of the three industries,* the wine industry adheres to the strictest set of guidelines, particularly in the area of prohibiting alcohol advertisements that use child-oriented subject matter. However, there are many inconsistencies among the three industries with regard to their guidelines. For example, the wine and beer industries have specific guidelines indicating that alcohol advertising or promotions should not appear in the youth-oriented media, whereas the distilled spirits industry has no such guidelines. Other inconsistencies in alcohol advertisement guidelines among the three main alcohol industries can be found in Appendix D. The discrepancies in these guidelines highlight the vagaries of industry standards.[91]

Some research has demonstrated public support for prohibiting alcohol sponsorship at cultural or sports events.[92] In a study comparing American and Canadian public opinions surveys on alcohol policies, the United States was more supportive of banning alcohol sponsored events than was Canada.[93] A review of public opinion surveys about alcohol and alcohol policies related to access, promotion and intervention found that 40 percent of respondents supported bans on alcohol sponsorship at sports and cultural events.[94]

Almost three-quarters of respondents (74.4 percent) in CASA's survey support some version of a policy that would restrict alcohol advertising. Support was stronger among females (80.2 percent) than among males (68.5 percent); among African-Americans (85.5 percent) than whites (74.6 percent) or Latinos (65.6 percent); and among respondents who seldom or never drink (81.6 percent) than among frequent drinkers (38.5 percent). Among those who state that alcohol advertising is the main influence on underage drinking, 85.7 percent support restricting alcohol advertising; yet, among those who cite the media and entertainment industries as the main influences, 100 percent supported restricting advertising. Ninety-two percent of those who think alcohol advertising is the main barrier to reducing underage drinking support restrictions on alcohol advertising.

The three versions of this policy were: banning alcohol advertisements in child-oriented media; banning alcohol advertisements on billboards; and banning alcohol companies' sponsorship of child-oriented community activities or sports events. There was little variation in support for the three versions of the policy (75.2 percent, 71.1 percent, and 76.9 percent, respectively).

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* The Beer Institute, the Distilled Spirits Council of the United States (DISCUS) and the Wine Institute.

Reducing Demand: School-, Family- and Community-Based Prevention

The federal government spent more than two billion dollars in FY 2000 to fight alcohol and drug use by children and teens.[95]

Strategies designed to reduce children and teens' demand for alcohol usually take the form of prevention programs primarily implemented in schools. In a recent CASA report, *Malignant Neglect: Substance Abuse and America's Schools*, CASA demonstrated that few school-based substance abuse prevention programs have documented successes because these programs fail to target the full range of risks for alcohol and other substance abuse faced by students today.[96] CASA's report indicated that the most effective programs appear to be those that are comprehensive and target many aspects of a child's life by involving the family, peers and the larger community.

> *Underage drinking is an issue that demands our attention and action. Parents and teachers are our strongest allies in the battle to keep our young people alcohol-free. It's not enough to tell young people that he or she should avoid alcohol – we need to set a good example and teach them how.*[97]
>
> --Tommy G. Thompson, Secretary
> U.S. Department of Health and Human Services

The last 15 years have witnessed an enormous increase in the amount of money spent on school-based alcohol and drug prevention. Congressional appropriations to the Department of Education's Safe and Drug Free Schools and Communities program, which is responsible for alcohol and drug prevention, was $200 million in 1987 but $747 million in 2002.[98] Despite these investments in school-based programs, there is little evidence that this money has yielded results.[99] Most prevention programs concentrate on illegal drugs and focus less on alcohol use in particular.

School-Based Prevention Programs

School-based programs vary widely in terms of intensity, frequency and duration of the delivery of prevention messages, with some presenting students with a single intervention and others being part of multi-year, comprehensive programs. Teachers, police officers, health educators, program staff and other professionals may administer program curricula to students. Programs may be delivered as part of the regular curriculum to all students, may target high-risk students through initiatives such as Student Assistance Programs, or may target students already known to have an alcohol problem.[100]

Alcohol use prevention programs usually are one of four types: (1) information-focused programs; (2) affective education programs (e.g., self-esteem building, stress management); (3) social influence programs (e.g., refusal skill training); and (4) comprehensive programs, which integrate several of these components.[101] School-based programs typically begin in the latter part of elementary school or in middle school; some start as early as the first grade. Though there are very few prevention programs that exclusively target alcohol use and misuse, most school substance abuse prevention programs address alcohol, although generally as a "gateway drug" (i.e., one whose use is likely to precede the use of other substances).

> *The key is to intervene and change the attitude that it's cool to drink.*
>
> *Change the attitude that having fun equals drinking.*
>
> *They did it with cigarettes. It took years to make smoking seem less cool. They need to give more information about the medical consequences of alcohol use to make alcohol also seem less cool.*
>
> --Females Without Underage Children
> CASA Focus Group

Two prominent alcohol-specific prevention programs have demonstrated limited short-term efficacy but to date no long-term positive effects. The *Alcohol Misuse Prevention Study (AMPS)* program, implemented in southwestern Michigan, focuses heavily on developing social resistance skills and also educates participants about the negative consequences of alcohol use.[102] Among at-risk students, the curriculum resulted in a significantly smaller increase in alcohol misuse among students in treatment than among students in the control group.[103] At a 26-month follow-up, students exposed to the prevention curriculum had more accurate knowledge about alcohol, were more aware of peer pressures to use alcohol, and had better resistance strategies than students not exposed to the program.[104] The program's effectiveness in terms of overall changes in alcohol use rates was less encouraging.[105]

The *Adolescent Alcohol Prevention Trial (All-Stars)* program is a comprehensive program for junior high school students which provides resistance skills training, information about the consequences of alcohol use and an accurate picture of the prevalence of peer alcohol use.[106] The idea behind this strategy is that if students realize that not everyone uses alcohol, their perceptions of alcohol "norms" (e.g., that alcohol use is a rite of passage or that all the cool kids drink) will change and they may feel less pressure to drink. The initial *All-Stars* intervention was conducted with fifth grade students in Los Angeles and San Diego, who received booster interventions in the seventh grade and were evaluated in the eighth grade. Despite evidence that the interventions did reduce students' estimates of the prevalence of alcohol use among kids, results suggest that resistance skills training alone is not effective in preventing alcohol use.[107] Students who received resistance skills training only perceived higher levels of peer alcohol use, while students who received the resistance skills training and normative education perceived lower levels of peer alcohol use.[108] Resistance skills training alone may actually make students feel that peer alcohol use is very prevalent.[109]

Many school-based curriculum programs target alcohol as well as drugs and tobacco. An example is Project ALERT which has been cited as one of nine "exemplary" prevention programs by the U.S. Department of Education. Although students participating in the program demonstrated modest reductions in alcohol use immediately after delivery of a seventh grade curriculum, these early gains disappeared by the eighth grade. Recognizing that these early effects were not holding over the long-term, an expanded program has been added which provides booster lessons as students progress through grades nine and 10.[110]

The effectiveness of these and other curricula is inherently limited because the risk factors for student alcohol abuse--and the motivations for student alcohol use--are not restricted to students' knowledge about the effects of alcohol or their skills to resist pressures to use alcohol.[111] Parents, teachers and students must not rely on curriculum programs as silver bullets to reduce teen alcohol use.[112]

Family-Based Prevention Programs

Family-based programs are predicated on the idea that the family environment can either enhance or dampen the risk of underage drinking. Family-based programs attempt to reduce parental alcohol use, enhance parenting skills and help parents educate their children about alcohol and drug use. Families also may play an important role in prevention by enforcing messages taught in school (comprehensive programs often try to actively involve parents). Other family-based prevention efforts include more parental involvement in activities with children, monitoring of children's activities, consistent discipline and positive role modeling.[113]

Families may become involved with family-based programs in a number of ways. For example, a child may be identified through school as "high-risk" and his/her family may be recruited for family work by a therapist or counselor. Families also may become involved with these programs through larger community-wide prevention programs that intervene at multiple levels of a child's social environment, such as through school or extracurricular activities. Some families may be recruited for research studies through schools that already have existing substance abuse prevention programs.

The paucity of research on family-based prevention programs precludes drawing conclusions about effectiveness and best practices. Several studies suggest, for example, that on their own family-based programs are not effective in reducing adolescent alcohol use,[114] and that so far, family-based programs are "more promise than premise."[115] However, a few studies suggest that family-based preventive work holds potential to reduce alcohol use and/or certain risk factors related to alcohol use. These include the *Families in Action Program*, the *Child and Parent Relations Project* and the *Strengthening Families Program*.

Families in Action (FIA) program in northeastern Michigan consists of six two-and-a-half-hour family sessions that emphasize family cohesion, school and peer connectedness, self-esteem and changing attitudes towards adolescent alcohol and tobacco use. In an evaluation of the program, protective factors such as family communication and school connectedness, appeared to increase students' self-reported level of family cohesion, school attachment, self-esteem and appropriate attitudes about when it is acceptable for teens to consume alcohol.[116]

Child and Parent Relations (CAPR) project in the Midwest likewise was designed to increase protective factors and reduce family risk factors. Initial in-home and telephone interventions emphasize parenting skills and overall family functioning. Follow-up sessions contain the same general material, but were revised for developmental appropriateness. Evaluation of the program indicates some lasting effectiveness in reducing alcohol use and misuse, but only for students without a history of prior drinking.[117] This finding suggests that teens with and without a history of prior drinking have very different intervention needs.

Strengthening Families Program (SFP) is a family-based program designed to prevent delinquency and substance use in children from at-risk families.[118] The program is among the most replicated family-based intervention programs.[119] Interventions, which include parent training (e.g. problem solving, limit setting), child skill building (e.g. problem solving, social skills training) and family skills training, are delivered to six- to 12-year old students and their families. A recent review of *SFP* evaluations suggests some promise.[120] The program has been associated with improved parenting skills, enhanced family relationships and reduced child intentions to use alcohol and/or tobacco.[121] Versions of the program adapted for African-American families also demonstrate efficacy in reducing child attributes that may be linked with alcohol and substance abuse (e.g., depression, aggression, social withdrawal), reducing parental drug use, and promoting protective factors such as school connectedness and family cohesion. However, there is little evidence that the program reduces actual alcohol use in the long-term.[122]

Comprehensive Community-Wide Programs to Reduce Both Supply and Demand

Comprehensive community-wide programs often involve a combination of both supply and demand reduction strategies. These models of prevention are predicated on the idea that "reducing alcohol availability will reduce alcohol consumption or modify the conditions under which it is consumed, which will in turn reduce alcohol-related problems such as violence, traffic injuries and alcohol consumption by minors."[123] A community-wide intervention may include raising alcohol taxes, requiring mandated beverage service training, changing the hours/days of sales and providing a school-based educational component. Comprehensive programs, which intervene in the schools, communities and often with parents, have gained popularity. A clear advantage of such programs is that the community (i.e., through community organizing and media advocacy) reinforces messages taught in school, alters the normative standards for underage alcohol use, and can even help restrict underage access to alcohol.

Evaluations of community-wide prevention programs have produced somewhat inconsistent results, though most interventions seem to make changes in the desired direction. Some, such as the *Community Trials Project* and *Project Northland* have produced promising results. *The Community Trials Project*[124] was implemented in three communities in California and South Carolina. Interventions included better enforcement of alcohol sales laws, responsible beverage service training, media advocacy designed to increase owners' awareness of policies and efforts to engage the community (i.e., to raise awareness, support activities). Better enforcement of alcohol laws coupled with media advocacy and other community activities significantly reduced sales to minors in two of the three experimental communities.[125] Apparently in response to the intervention, self-reported alcohol use, motor vehicle accidents and assault injuries also decreased.[126] Self-reported frequency of driving while legally intoxicated decreased 51 percent from 0.77 to 0.38 between April 1992 and December 1996.[127] There was a six percent decrease in monthly rates of Driving Under the Influence (DUI) infractions in experimental communities compared to control communities (i.e., no interventions).[128]

Another example of a comprehensive alcohol prevention program is *Project Northland*[129] a research-based program in Minnesota. It provides a combination of community organizing, youth development, media advocacy, parent education and involvement and classroom curriculum. Community organizing efforts include responsible beverage service/merchant training and compliance checks. Evaluation of the first phase of *Project Northland* (1990-1994) revealed some promising findings. *Project Northland* interventions seem to reduce personal risk factors (e.g., school problems, low aspirations) that may put a teen at risk for alcohol abuse.[130] Students in the intervention group had significantly lower scores on a measure of tendency to drink, lower percentages of reported alcohol use and lower scores on a measure of peer influence.[131] These effects diminished by the tenth grade.[132] Unfortunately, the diminishing of program effects is not unusual,[133] but does suggest the need for the delivery of consistent, age-appropriate messages through age 21.

Preliminary evaluations of the *Midwestern Prevention Project (Project STAR)*[134] show some short-term encouraging findings. *Project Star* is a comprehensive program that targets schools, the media and parents to reduce adolescent alcohol, tobacco and drug use. The program was implemented at sites in Kansas City, Missouri and in Indianapolis. Participants showed significantly lower use rates of alcohol, tobacco and marijuana after just one year.[135]

As with school-based curriculum programs, many comprehensive, community-based prevention programs target alcohol, drug and tobacco use. One such program, CASASTART (*Striving Together to Achieve Rewarding Tomorrows*) is a comprehensive neighborhood-based, school-centered program developed by CASA to prevent alcohol, tobacco and drug use and abuse and delinquency among high-risk eight- to 13-year old students and to reduce substance-related crime in their neighborhoods. The Urban Institute, under contract with CASA and the National Institute of Justice, conducted an independent impact analysis of the CASASTART parent program, then called *Children at Risk*. A major finding of the evaluation was that, compared to a control group, program participants were significantly less likely to use alcohol, tobacco and other illicit drugs.[136]

The National Association of Governors' Highway Safety Representatives and the National Highway Traffic Safety Administration have created a series of booklets based on the experiences of five communities in establishing comprehensive underage drinking prevention programs. The guides address the topics of coalition-building, needs assessment, underage drinking enforcement, prevention and education, public policy advocacy and media relations.

Media Campaign

A bill has been introduced to Congress seeking to launch a national advertising campaign aimed at reducing alcohol use among young people. This bill, the *National Media Campaign to Prevent Underage Drinking*, was introduced in April of 2001 by Lucille Roybal-Allard (CA) and Frank Wolf (VA).[137] It is modeled after the White House Office of National Drug Control Policy's (ONDCP's) five year, $185 million national advertising campaign aimed at reducing drug use among children and teens. The bill calls for supplementing rather than replacing existing state, local and private efforts to reduce underage drinking.[138] The bill, which remains in Congressional committee, faces resistance from the alcohol industry.[139]

Adolescent Alcohol and Drug Treatment Programs

The Need for Adolescent Treatment Programs Far Exceeds Supply

With regard to treatment, programs specifically aimed at underage alcohol abuse, particularly those that are accessible and affordable, are extremely rare even though treatment approaches to reducing underage drinking tend to receive public support. Treatment approaches should be tailored to take into account the child's age, gender, ethnicity, cultural background, family structure, cognitive and social development and readiness for change.[140]

The Substance Abuse and Mental Health Services Administration (SAMHSA) estimates that the number of individuals under 18 receiving treatment for substance abuse increased from 44,000 to 77,000 between 1991 and 1996.[141] In 1995, one in five (21.5 percent, or 262,112) of the clients who were admitted to alcohol treatment programs were under the age of 24; 18,194 of these were under the age of 15.[142] Despite this increasing demand for services, treatment programs specifically tailored to adolescents are in extremely short supply.[143] In 1997-1998 for example, less than one in six teens between the ages of 12 and 17 diagnosed as alcohol dependent received treatment.[144]

Access to Treatment

Concerned family members, psychiatrists, psychologists, physicians, social workers, clergy and school counselors are common sources of referrals to treatment. In some instances, a Student Assistance Program (SAP) may be the first line of defense. Modeled after the Employee Assistance Program (EAP), SAP provides an umbrella structure under which school and community service providers and resources are coordinated to provide assistance services to high-risk students who are experiencing substance abuse, academic or social problems.

Composed of a core team of administrators, teachers, counselors and social workers, a typical SAP offers early identification of student problems, assessment of student needs, in-school counseling and support services, referral to outside agencies and follow-up services through problem solving team and case management. Recent studies have found that fewer students reported substance use after participating in SAPs.[145]

Once a child or adolescent has been identified as needing treatment, the difficulties are affordability and accessibility. While some treatment programs accept Medicaid, others accept only private insurance, but may have sliding fee scales. There is considerable variability in the length and cost of treatment and in the proximity of treatment to those who need it.

Adolescents Have Unique Treatment Needs

Relative to adults, adolescents are more likely to use alcohol in conjunction with other drugs.[146] Furthermore, other co-occurring psychiatric disorders, such as conduct disorder, depression, or anxiety or eating disorders, tend to appear in adolescence, increasing their vulnerability to alcohol abuse.[147] For example, one study found that 89 percent of teens involved in alcohol treatment had a conduct disorder and/or major depressive disorder.[148] Unfortunately, adolescents have historically received treatment designed for adults,[149] even though there is increasing recognition of the need for specialized adolescent treatment programs.

Treatment and Recovery

Many different types of treatment and recovery programs are used with adolescents, but so far no particular approach has demonstrated superior efficacy. Treatment and recovery programs can be administered in residential or outpatient settings; can take the form of psychotherapy and/or psychopharmacology; can heavily involve the family or focus just on the children; and may be delivered through a host of different frameworks (e.g., family systems, behavioral and/or cognitive-behavioral interventions, 12-Step models, etc.). The most common types of programs for alcohol abuse in adolescents are family therapy, therapeutic communities (TCs) and 12-step programs.[150] Many family therapy and TC programs use cognitive-behavior therapy as part of their treatment protocols.

Family Therapy. The goal of family-based therapy is to improve family functioning by identifying problems in how family members cope and relate to one another and teach more adaptive methods of family interaction. Family therapy can be delivered as an adjunct to residential programs, or on an outpatient basis. Family therapy models are predicated on the idea that the family unit can be both a source of health and a source of risk for children and adolescents. Family-based treatment varies in terms of frequency, intensity and duration. Family therapy has been shown to be effective, especially for the most difficult to treat adolescents,[151] and often is thought to be a vital component of successful adolescent alcohol treatment.[152]

Therapeutic Community. A therapeutic community (TC) is a highly structured community environment that includes a combination of individual counseling and group therapy. Medical and mental health services, vocational preparation, job placement, housing and aftercare are provided as well. Though originally designed for adults, this approach to treatment has shown some promising short-term results in treating adolescents.[153]

12-Step Model. The 12-Step model is organized around the principles of self-help, mutual aid and spirituality, whereby individuals participate in their own recovery in the context of a supportive group environment. This model also has been integrated into residential treatment programs in which twelve-step group meetings often are a core component of therapy. The strong emphasis on anonymity is a barrier to research on this model, but research suggests that individuals who attend twelve-step programs in addition to receiving treatment are more likely to be successful in recovery.[154]

Unfortunately, few systematic evaluations of adolescent treatment programs have been conducted.[155] Though there appears to be no strong evidence in support of any one treatment approach, there is some evidence that programs that are intensive, comprehensive, culturally sensitive, engage the family, involve a range of social services and provide aftercare have been associated with positive treatment outcomes.[156] Successful programs also are individualized and, where possible, include the family unit.[157]

Chapter IV
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Chapter V
Opportunities and Next Steps

Policies and programs to prevent and reduce underage drinking vary by community and by state. Enforcement is generally inconsistent and evaluations of the efficacy of these policies for reducing underage drinking are sparse. Interventions that are being tried--primarily school-based programs--demonstrate little evidence of long term effectiveness. Affordable and effectual alcohol abuse treatment programs aimed specifically at children and teens are rare. The costs and consequences of this problem continue to mount, yet America seems trapped in its ambivalence about alcohol.

CASA's unique *National Underage Drinking Survey* casts light on public attitudes and perceptions about underage drinking. It identifies those policies and practices that hold promise for curbing underage drinking, highlights those that are more palatable to the public and suggests areas where education could make a difference.

CASA highlights the following opportunities for parents, teens, policy makers, educators, prevention specialists, treatment providers and the alcohol industry that appear to hold the greatest promise for reducing underage drinking.

Be "Hands-On" Parents by being involved in children's day-to day activities, talking with them about alcohol use and its consequences and modeling healthy behavior.

Hold Parents Legally Responsible for their children's alcohol use through fines and community service requirements.

Engage Children and Young Adults in efforts to reduce underage drinking among their peers. Educate them about the effects and consequences of underage drinking and teach them to recognize and understand the persuasive appeal of alcohol advertising. Inform teens of their importance to alcohol industry profits. Engage them in positive future planning and provide more recreational activities and facilities for children.

A Checklist for Parents

- ✓ Set rules and expectations and enforce consequences.
- ✓ Eat dinner together.
- ✓ Monitor TV and Internet use and CD purchases.
- ✓ Know your children's friends and where they go.
- ✓ Send clear messages about alcohol use.
- ✓ Discuss negative consequences of drinking.
- ✓ Give your children perspective on media messages.
- ✓ Don't show your children that it takes a drink to relax.
- ✓ Don't accept underage drinking as a rite of passage.
- ✓ When your child needs help, get treatment--fast!

Step Up Enforcement of Underage Drinking Laws for children and young adults who drink alcohol and the individuals and commercial establishments that provide it to them. Impose fines and community service requirements on underage drinkers and adults providing alcohol or lending their ID to children. Penalize commercial establishments that sell alcohol to minors through suspended licenses and civil and criminal liability, and increase undercover enforcement of underage drinking restrictions.

Restrict Social and Commercial Availability of Alcohol to Minors by restricting home delivery of alcohol to minors, requiring keg registration, regulating the distance of commercial alcohol establishments from schools and other places where children congregate and prohibiting sales of alcohol in public places such as beaches and parks.

Ban Alcohol Advertising on Television for beer, wine and distilled spirits. Promote responsible messages in the media (e.g., on-line, print and radio) and the entertainment industry about underage alcohol use (including its connection to dangerous sexual practices by teens).

Require Prominent Warning Labels in all alcohol advertising. Currently, the U.S. federal government, through the Alcohol Beverage Labeling Act, only requires warning labels to appear on all alcohol beverage containers.

End Alcohol Sponsorship of child-oriented activities such as athletic leagues and events.

Expand the Authority of the Office of National Drug Control Policy to include alcohol. Congress should require the ONDCP to address alcohol (and tobacco) in addition to illegal drugs. The ONDCP should expand their national "Anti-drug" campaign to include alcohol.

Fund Additional Treatment Services to close the adolescent treatment gap.

Step Up Research for effective alcohol prevention and treatment for children. Examine the link between alcohol use and the use of nicotine and illicit substances, and develop effective anti-drinking messages for media campaigns. Researchers should continue to explore the relationship between the media and advertising and children's alcohol consumption.

Create an Independent Foundation financed by the alcohol industry (modeled after the American Legacy Foundation) to develop ads and other methods to discourage underage drinking.

Increase Alcohol Taxes and dedicate revenues to prevention and treatment of alcohol abuse and alcoholism.

Appendix A
Survey Descriptions

Monitoring the Future (MTF)

Monitoring the Future is an ongoing study of the behaviors, attitudes, and values of American secondary school students, college students, and young adults. Each year, a total of some 50,000 eighth, tenth and twelfth grade students are surveyed (twelfth graders since 1975, and eighth and tenth graders since 1991). In addition, annual follow-up questionnaires are mailed to a sample of each graduating class for a number of years after their initial participation.

Youth Risk Behavior Survey (YRBS)

The Youth Risk Behavior Survey (YRBS) monitors six categories of priority health-risk behaviors among youth and young adults--behaviors that contribute to unintentional and intentional injuries; tobacco use; alcohol and other drug use; sexual behaviors that contribute to unintended pregnancy and sexually transmitted diseases (including human immunodeficiency virus [HIV] infection); unhealthy dietary behaviors; and physical inactivity. The YRBS includes a national school-based survey conducted by the Centers for Disease Control and Prevention (CDC) as well as state, territorial, and local school-based surveys conducted by education and health agencies.

The National Household Survey on Drug Abuse (NHSDA)

The National Household Survey on Drug Abuse (NHSDA) provides annual estimates of the prevalence of illicit drug, alcohol and tobacco use in the U. S. and monitors the trends in use over time. It is based on a representative sample of the noninstitutionalized U.S. population age 12 and older.

The American Drug and Alcohol Survey (ADAS)

The American Drug and Alcohol Survey, created by Eugene R. Oetting and colleagues, is a nationally standardized survey designed to sample information about the full range of substances likely to be used by youth. Respondents are in grades four through 12. Questions cover drug use in general, experiences and attitudes regarding drugs and alcohol, and the use of individual drugs.

CASA's Annual National Survey of American Attitudes on Substance Abuse

Since 1995, CASA has conducted national surveys of teens' attitudes toward substance abuse as well as the attitudes of those who most influence them--parents, teachers and school principals. While other surveys seek to measure the extent of substance use in the population, CASA's survey probes substance abuse risk. The purpose of the survey is to identify factors that increase or diminish the likelihood that teens will use cigarettes, alcohol or illegal drugs in an effort to develop the most effective means of helping teens avoid substance abuse.

The CASA National Underage Drinking Survey

Hello, my name is (full name) with Southern Research Services. We are conducting a survey of adults throughout the nation to get their opinions about underage drinking.

I need to speak with a **(male/female)** who lives in this household and who is 21 years of age or older. Would that be you?

(CONTINUE.) ←	Yes	1
(ASK TO SPEAK TO THAT PERSON. IF NOT AVAILABLE, MAKE A CALLBACK APPOINTMENT.) ←	No	2

DEMOGRAPHIC QUESTIONS

Let me begin by asking a few questions for classification purposes only. We ask these questions just to be sure we get correct representation of people throughout the nation.

1. First of all, please tell me your age. **(IF NECESSARY, SAY:** "Are you . . .?")

21 to 24	1
25 to 34	2
35 to 44	3
45 to 54	4
55 to 64	5
65 to 74	6
75 plus	7
No response	8

2. And what is your gender/sex?

Male	1
Female	2

3. Do you consider yourself to be . . .?

African American/Black	1
Hispanic/Latino	2
Asian/Pacific Islander	3
Caucasian/White	4
Mixed race	5
Other **(SPECIFY)**	6
______________________	
No response	7

4. What is the highest level of education you completed? Was it . . .?

Elementary school	1
Junior high/middle school	2
High school or GED	3
Technical/vocational school	4
Community college (2 years)	5
Some college	6
College graduated	7
Graduate school	8
No response	9

5. What is your marital status?

Married	1
Living with boyfriend/ girlfriend/partner	2
Single, never married	3
Separated	4
Divorced	5
Widowed	6
Other **(SPECIFY)**	7
______________________	
No response	8

6. Do you have any children living at your household under the age of 21?

	Yes	1
(SKIP TO Q. 8.) ←	No	2
(SKIP TO Q. 8.) ←	No response	3

7. IF YES: How many are . . .?

Less than 5 years old	______
6 to 11 years old	______
12 to 17 years old	______
18 to 20 years old	______

8. Which of the following best describes your political opinions? Would you say . . .?

	Conservative	1
	Moderate (or)	2
	Liberal	3
(DO NOT READ.) ←	No response	4

9. Do you usually vote . . . ?

	Independent	1
	Republican (or)	2
	Democratic	3
(DO NOT READ.) ←	Don't usually vote	4
(DO NOT READ.) ←	No response	5

10. Within which of the following ranges does your total family income fall?

Below $15,000	1
$15,000 to $30,000	2
$30,000 to $50,000	3
$50,000 to $75,000	4
Above $75,000	5
No response	6

11. Now let me ask you some general questions about underage drinking. Do you believe underage drinking is a problem in your community? Would you say it is . . .?

	A very big problem	1
	Somewhat of a problem	2
	Not a problem at all	3
	No response	4

12. To what extent, if at all, are you personally concerned about underage alcohol use? Would you say you are . . .?

	Not at all concerned	1
	Somewhat concerned (or)	2
	Very much concerned	3
(DO NOT READ.) ←	Don't know, no preference	4

13. **NOW I WILL READ YOU SOME POTENTIAL CONSEQUENCES OF UNDERAGE DRINKING. PLEASE TELL ME FOR EACH ONE HOW MUCH OF A CONCERN IT IS TO YOU.** The first one is the potential for physical health consequences associated with underage drinking. Does that concern you . . .?

	Not at all	1
	Somewhat (or)	2
	Very much	3
(DO NOT READ.) ←	Don't know, no preference	4

14. The potential for emotional or social consequences associated with underage drinking. Does that concern you . . .?

	Not at all	1
	Somewhat (or)	2
	Very much	3
(DO NOT READ.) ←	Don't know, no preference	4

15. The potential for academic or work problems associated with underage drinking. Does that concern you . . .?

	Not at all	1
	Somewhat (or)	2
	Very much	3
(DO NOT READ.) ←	Don't know, no preference	4

16. The potential for delinquency or criminal behaviors as a consequence of underage drinking. Does that concern you . . .?

	Not at all	1
	Somewhat (or)	2
	Very much	3
(DO NOT READ.) ←	Don't know, no preference	4

17. The potential for risky sexual behaviors as a consequence of underage drinking. Does that concern you . . .?

	Not at all	1
	Somewhat (or)	2
	Very much	3
(DO NOT READ.) ←	Don't know, no preference	4

18. The risk of developing alcoholism or alcohol dependence as a consequence of underage drinking. Does that concern you . . .?

	Not at all	1
	Somewhat (or)	2
	Very much	3
(DO NOT READ.) ←	Don't know, no preference	4

19. Underage drinking may be a gateway to illicit drug use. Does that concern you . . .?

	Not at all	1
	Somewhat (or)	2
	Very much	3
(DO NOT READ.) ←	Don't know, no preference	4

20. Financial costs to society, for example from property damage or medical care, as a consequence of underage drinking. Does that concern you . . .?

	Not at all	1
	Somewhat (or)	2
	Very much	3
(DO NOT READ.) ←	Don't know, no preference	4

21. Which of the possible consequences of underage drinking we just discussed are of most concern to you?

DO NOT READ LIST. DO NOT PROBE. ALLOW FOR MULTIPLE RESPONSES.

Physical health	1
Emotional or social consequences	2
Academic or work problems	3
Delinquency or criminal behavior	4
Risky sexual behavior	5
Risk of developing alcoholism or dependence	6
Gateway to illicit drug use	7
Financial cost to society	8
Other **(SPECIFY.)** ____________________	9
Don't know	10

22. Are there other problems that concern you about underage drinking?

(CONTINUE.) ←	Yes	1
(SKIP TO Q. 23.) ←	No	2

22a. What other problems concern you about underage drinking?

____ ____ ____*

____ ____ ____*

____ ____ ____*

NOW I'D LIKE YOU TO TELL ME TO WHAT EXTENT YOU AGREE OR DISAGREE THAT THE FOLLOWING STATEMENTS ARE REASONS WHY PEOPLE UNDER 21 DRINK ALCOHOL.

23. Peer group influence is an important reason for why people under 21 drink alcohol. Do you . . .?

	Strongly disagree	1
	Somewhat disagree	2
	Somewhat agree (or)	3
	Strongly agree	4
(DO NOT READ.) ←	Don't know, no preference	5

24. Youthful restlessness (rebellion, boredom) is an important reason for why people under 21 drink alcohol. Do you . . .?

	Strongly disagree	1
	Somewhat disagree	2
	Somewhat agree (or)	3
	Strongly agree	4
(DO NOT READ.) ←	Don't know, no preference	5

25. Youth depression or emotional problems are important reasons for why people under 21 drink alcohol. Do you . . .?

	Strongly disagree	1
	Somewhat disagree	2
	Somewhat agree (or)	3
	Strongly agree	4
(DO NOT READ.) ←	Don't know, no preference	5

26. Parental influence is an important reason for why people under 21 drink alcohol. Do you . . .?

	Strongly disagree	1
	Somewhat disagree	2
	Somewhat agree (or)	3
	Strongly agree	4
(DO NOT READ.) ←	Don't know, no preference	5

27. "Alcohol-Using" adult role models (other than parents) are important reasons for why people under 21 drink alcohol. Do you . . .?

	Strongly disagree	1
	Somewhat disagree	2
	Somewhat agree (or)	3
	Strongly agree	4
(DO NOT READ.) ←	Don't know, no preference	5

28. Media and the entertainment industry, that is movies, TV, or music, are important reasons for why people under 21 drink alcohol. Do you . . .?

	Strongly disagree	1
	Somewhat disagree	2
	Somewhat agree (or)	3
	Strongly agree	4
(DO NOT READ.) ←	Don't know, no preference	5

29. Alcohol advertising is an important reason for why people under 21 drink alcohol. Do you . . .?

	Strongly disagree	1
	Somewhat disagree	2
	Somewhat agree (or)	3
	Strongly agree	4
(DO NOT READ.) ←	Don't know, no preference	5

30 The desire to relax or be less inhibited is an important reason for why people under 21 drink alcohol. Do you . . .?

	Strongly disagree	1
	Somewhat disagree	2
	Somewhat agree (or)	3
	Strongly agree	4
(DO NOT READ.) ←	Don't know, no preference	5

31. Which of the items that we just discussed do you think is the most important reason for why people under 21 drink alcohol?

DO NOT READ LIST. DO NOT PROBE. ALLOW FOR MULTIPLE RESPONSES.

Peer group influence	1
Restlessness	2
Depression or emotional problems	3
Parental influence	4
Alcohol use by adults	5
Media/entertainment industry	6
Alcohol advertising	7
Relax/less inhibited	8
Other **(SPECIFY.)** ______________	9
Don't know	10

32. Are there other reasons that you can think of for why people under 21 drink alcohol?

(CONTINUE.) ←	Yes	1
(SKIP TO Q. 33.) ←	No	2

32a. For what other important reasons do you think people under 21 drink? **(SPECIFY.)**

______________________________ ____ ____*

______________________________ ____ ____*

______________________________ ____ ____*

33. In order to reduce underage drinking, which of the following would you say is the most important thing to do?

Impose more severe penalties on those who violate the underage drinking regulations	1
Ensure better enforcement of existing underage drinking regulations	2
Implement new regulations to reduce underage drinking	3
No response	4

NEXT, I WILL READ SEVERAL ITEMS THAT MAY PREVENT US FROM EFFECTIVELY REDUCING UNDERAGE DRINKING. PLEASE TELL ME TO WHAT EXTENT YOU AGREE OR DISAGREE WITH THE STATEMENT.

34. To what extent do you agree or disagree that INEFFECTIVE ENFORCEMENT OF CURRENT LAWS OR REGULATIONS prevents us from effectively reducing underage drinking? Would you . . .?

	Strongly disagree	1
	Somewhat disagree	2
	Somewhat agree (or)	3
	Strongly agree	4
(DO NOT READ.) ←	Don't know, no preference	5

35. To what extent do you agree or disagree that INSUFFICIENT LAWS OR REGULATIONS prevent us from effectively reducing underage drinking? Would you . . .?

	Strongly disagree	1
	Somewhat disagree	2
	Somewhat agree (or)	3
	Strongly agree	4
(DO NOT READ.) ←	Don't know, no preference	5

36. To what extent do you agree or disagree that A LACK OF EFFECTIVE PREVENTION PROGRAMS prevents us from effectively reducing underage drinking? Would you . . .?

	Strongly disagree	1
	Somewhat disagree	2
	Somewhat agree (or)	3
	Strongly agree	4
(DO NOT READ.) ←	Don't know, no preference	5

37. To what extent do you agree or disagree that a LACK OF EFFECTIVE TREATMENT PROGRAMS for underage drinkers prevents us from effectively reducing underage drinking? Would you . . .?

	Strongly disagree	1
	Somewhat disagree	2
	Somewhat agree (or)	3
	Strongly agree	4
(DO NOT READ.) ←	Don't know, no preference	5

38. To what extent do you agree or disagree that a LACK OF OR LIMITED PARENTAL INVOLVEMENT in teens' lives prevents us from effectively reducing underage drinking? Would you . . .?

	Strongly disagree	1
	Somewhat disagree	2
	Somewhat agree (or)	3
	Strongly agree	4
(DO NOT READ.) ←	Don't know, no preference	5

39. To what extent do you agree or disagree that THE MEDIA prevents us from effectively reducing underage drinking? Would you . . .?

	Strongly disagree	1
	Somewhat disagree	2
	Somewhat agree (or)	3
	Strongly agree	4
(DO NOT READ.) ←	Don't know, no preference	5

40. To what extent do you agree or disagree that ALCOHOL ADVERTISEMENTS prevent us from effectively reducing underage drinking? Would you . . .?

	Strongly disagree	1
	Somewhat disagree	2
	Somewhat agree (or)	3
	Strongly agree	4
(DO NOT READ.) ←	Don't know, no preference	5

41. Which of the items that we just discussed do you think are most responsible for preventing us from effectively reducing underage drinking?

DO NOT READ LIST. DO NOT PROBE. ALLOW FOR MULTIPLE RESPONSES.

Ineffective enforcement of current laws or regulations	1
Insufficient laws or regulations	2
Lack of effective prevention programs	3
Lack of effective treatment programs	4
Lack of or limited parental involvement in teens' lives	5
The media	6
Alcohol advertising	7
Other **(SPECIFY.)** ______________________	8
Don't know	9

42. **NOW PLEASE TELL ME THE EXTENT TO WHICH YOU AGREE OR DISAGREE WITH EACH OF THE FOLLOWING STATEMENTS REGARDING WHO BEARS RESPONSIBILITY FOR UNDERAGE DRINKING AND ITS ASSOCIATED PROBLEMS.** Establishments that sell alcohol are responsible for underage drinking. Do you . . .?

	Strongly disagree	1
	Somewhat disagree	2
	Somewhat agree (or)	3
	Strongly agree	4
(DO NOT READ.) ←	Don't know, no preference	5

43. Parents are responsible for underage drinking. Do you . . .?

	Strongly disagree	1
	Somewhat disagree	2
	Somewhat agree (or)	3
	Strongly agree	4
(DO NOT READ.) ←	Don't know, no preference	5

44. Peer culture is responsible for underage drinking. Do you . . .?

	Strongly disagree	1
	Somewhat disagree	2
	Somewhat agree (or)	3
	Strongly agree	4
(DO NOT READ.) ←	Don't know, no preference	5

45. Inadequate law enforcement is responsible for underage drinking. Do you . . .?

	Strongly disagree	1
	Somewhat disagree	2
	Somewhat agree (or)	3
	Strongly agree	4
(DO NOT READ.) ←	Don't know, no preference	5

46. The media is responsible for underage drinking. Do you . . .?

	Strongly disagree	1
	Somewhat disagree	2
	Somewhat agree (or)	3
	Strongly agree	4
(DO NOT READ.) ←	Don't know, no preference	5

47. The alcohol industry is responsible for underage drinking. Do you . . .?

	Strongly disagree	1
	Somewhat disagree	2
	Somewhat agree (or)	3
	Strongly agree	4
(DO NOT READ.) ←	Don't know, no preference	5

48. Political leaders are responsible for underage drinking. Do you . . .?

	Strongly disagree	1
	Somewhat disagree	2
	Somewhat agree (or)	3
	Strongly agree	4
(DO NOT READ.) ←	Don't know, no preference	5

49. Of the groups we just discussed, who would you say bears the most responsibility for underage drinking?

DO NOT READ LIST. DO NOT PROBE. ALLOW FOR MULTIPLE RESPONSES.

Establishments that sell alcohol	1
Parents	2
Peer culture	3
Inadequate law enforcement	4
Media	5
Alcohol industry	6
Political leaders	7
Other **(SPECIFY.)** ______________________________	8
Don't know	9

50. Is there someone else that you think bears responsibility for underage drinking?

(CONTINUE.) ←	Yes	1
(SKIP TO Q. 51.) ←	No	2

50a. Who do you think is responsible?

______________________________ ____ ____*

______________________________ ____ ____*

______________________________ ____ ____*

51. To what extent do you agree or disagree that it is possible to reduce underage drinking?

	Strongly disagree	1
	Somewhat disagree	2
	Somewhat agree (or)	3
	Strongly agree	4
(DO NOT READ.) ←	Don't know, no preference	5

52. To what extent do you agree or disagree that policies, regulations, and laws can help reduce underage drinking?

	Strongly disagree	1
	Somewhat disagree	2
	Somewhat agree (or)	3
	Strongly agree	4
(DO NOT READ.) ←	Don't know, no preference	5

53. To what extent do you agree or disagree that somehow punishing underage drinkers who are caught drinking discourages teens from attempting to get alcohol?

	Strongly disagree	1
	Somewhat disagree	2
	Somewhat agree (or)	3
	Strongly agree	4
(DO NOT READ.) ←	Don't know, no preference	5

SPECIFIC POLICIES

54. **Next, I will read a description of several policies. As I read each one, I will ask you if you are in favor of having this policy implemented in your community. Please note that some of these might already be in effect where you live and some might not. If a certain policy already exists in your community, please indicate if you are in favor of it or not. Regardless of whether or not you are familiar with the policy, please try your best to evaluate each one by thinking about its merits and disadvantages.**

Let's begin by talking about . . . Undercover attempts to enforce underage drinking restrictions:

Version 1: One way is to enact what is known as "compliance checks" in which youth are recruited by the police to work "undercover" and attempt to buy alcohol from alcohol establishments in order to catch those establishments that sell alcohol to minors.

Version 2: One way is to enact what is known as "shoulder-taps" in which youth are recruited by the police to work "undercover" and ask adults entering alcohol establishments to buy alcohol for them in order to catch those adults who willingly provide alcohol to minors.

Version 3: One way is to enact what is known as "cops in shops" in which undercover cops act as sellers in alcohol establishments in order to catch minors attempting to buy alcohol.

54a. Would you be in favor of having this policy implemented in your community, or, if it already exists in your community, are you in favor of it?

(SKIP TO Q. 55.) ←	Yes	1
	No	2

54b. **IF NO:** Which of the following reasons best represent why you do not support this policy? **(READ LIST.)**

	Cost of enforcement	1
	It targets or punishes the wrong party	2
	It unfairly infringes on adults' rights to drink alcohol.	3
	It doesn't address the problem. The policy is not a logical way to reduce underage drinking.	4
	Other **(SPECIFY.)** ______________	5
(DO NOT READ.) ←	No response	6

55. **Now let's talk about limiting access to commercial establishments that sell alcohol:**

Version 1: One way is to regulate the distance of alcohol establishments from schools, playgrounds, etc.

Version 2: One way is to limit the number of alcohol establishments that can exist in any particular neighborhood.

Version 3: One way is to limit the hours or days of the week during which alcohol can be sold.

Would you be in favor of having this policy implemented in your community, or, if it already exists in your community, are you in favor of it?

(SKIP TO Q. 56.) ←	Yes	1
	No	2

55a. **IF NO**: Which of the following reasons best represent why you do not support this policy?

	Cost of enforcement	1
	It targets or punishes the wrong party	2
	It unfairly infringes on adults' rights to drink alcohol.	3
	It doesn't address the problem. The policy is not a logical way to reduce underage drinking.	4
	Other **(SPECIFY.)** ________________	5
(DO NOT READ.) ←	No response	6

56. **Another policy is to increase alcohol taxes:**

Version 1: One way is to increase alcohol taxes and the tax money would go toward underage drinking prevention and treatment programs.

Version 2: One way is to increase alcohol taxes and the tax money would go toward general government expenses.

Version 3: One way is to increase alcohol taxes and the tax money would go toward lowering other universal taxes, such as income tax.

Would you be in favor of having this policy implemented in your community, or, if it already exists in your community, are you in favor of it?

(SKIP TO Q. 57.) ←	Yes	1
	No	2

56a **IF NO**: Which of the following reasons best represent why you do not support this policy?

	Cost of enforcement	1
	It targets or punishes the wrong party	2
	It unfairly infringes on adults' rights to drink alcohol.	3
	It doesn't address the problem. The policy is not a logical way to reduce underage drinking.	4
	Other **(SPECIFY.)** ______________________	5
(DO NOT READ.) ←	No response	6

57. **The next policy is to . . .Restrict alcohol advertising:**

Version 1: One way is to ban alcohol ads in youth-oriented magazines, movies, or TV shows.

Version 2: One way is to ban alcohol ads on billboards.

Version 3: One way is to ban alcohol sponsorship of youth-oriented community activities or sports events.

Would you be in favor of having this policy implemented in your community, or, if it already exists in your community, are you in favor of it?

(SKIP TO Q. 58.) ←	Yes	1
	No	2

57a. **IF NO:** Which of the following reasons best represent why you do not support this policy?

	Cost of enforcement	1
	It targets or punishes the wrong party	2
	It unfairly infringes on adults' rights to drink alcohol.	3
	It doesn't address the problem./The policy is not a logical way to reduce underage drinking.	4
	Other **(SPECIFY.)** ________________	5
(DO NOT READ.) ←	No response	6

58. **The next policy is to . . .Restrict alcohol access in public areas:**

Version 1: One way is to prohibit alcohol sales and the drinking of alcohol at community events, such as sporting events, concerts, and fairs.

Version 2: One way is to prohibit alcohol sale and the drinking of alcohol in public places, such as beaches, zoos, and parks.

Version 3: One way is to prohibit alcohol sales and the drinking of alcohol at all community events that youth and families attend.

Would you be in favor of having this policy implemented in your community, or, if it already exists in your community, are you in favor of it?

(SKIP TO Q. 59.) ←	Yes	1
	No	2

58a. **IF NO:** Which of the following reasons best represent why you do not support this policy?

	Cost of enforcement	1
	It targets or punishes the wrong party	2
	It unfairly infringes on adults' rights to drink alcohol.	3
	It doesn't address the problem. The policy is not a logical way to reduce underage drinking.	4
	Other **(SPECIFY.)** ______________________	5
(DO NOT READ.) ←	No response	6

59. **The next policy deals with . . .Parental responsibility for underage drinking:**

Version 1:

- This policy is that parents should be held liable for their own children's use of alcohol only if parents knew the child was drinking.

Version 2:

- This policy is that parents should be held liable for their own children's use of alcohol whether or not parents knew the child was drinking.

Version 3:

- This policy is that parents should be held liable for other people's children's use of alcohol if those children obtained the alcohol from the parent's home with the parent's knowledge.

Would you be in favor of having this policy implemented in your community, or, if it already exists in your community, are you in favor of it?

(SKIP TO Q. 60.) ←	Yes	1
	No	2

59a. **IF NO:** Which of the following reasons best represent why you do not support this policy?

	Cost of enforcement	1
	It targets or punishes the wrong party	2
	It unfairly infringes on adults' rights to drink alcohol.	3
	It doesn't address the problem. The policy is not a logical way to reduce underage drinking.	4
	Other **(SPECIFY.)** ________________________	5
(DO NOT READ.) ←	No response	6

60. **The next policy is to . . .Impose penalties on parents whose children engage in underage drinking:**

Version 1:

- One policy states that persons harmed by a minor who had been drinking at home should be able to sue the parents of the minor for the harm or damage.

Version 2:

- One policy states that parents caught providing alcohol to underage drinkers, whether to their own children or other people's children, should be required to spend time in jail.

Version 3:

- One policy states that parents caught providing alcohol to underage drinkers, whether to their own children or other people's children, should be required to perform community service.

Would you be in favor of having this policy implemented in your community, or, if it already exists in your community, are you in favor of it?

(SKIP TO Q. 61.) ←	Yes	1
	No	2

60a. **IF NO:** Which of the following reasons best represent why you do not support this policy?

	Cost of enforcement	1
	It targets or punishes the wrong party	2
	It unfairly infringes on adults' rights to drink alcohol.	3
	It doesn't address the problem. The policy is not a logical way to reduce underage drinking.	4
	Other **(SPECIFY.)** ______________________	5
(DO NOT READ.) ←	No response	6

61. **The next policy is to impose penalties on underage drinkers:**

Version 1:

- One policy states that minors caught drinking alcohol should have to perform community service.

Would you be in favor of having this policy implemented in your community, or, if it already exists in your community, are you in favor of it?

←	Yes	1
(SKIP TO Q. 61c.) ←	No	2

IF YES, ASK: To what extent do you agree that each of the following types of community service is appropriate?

61a. Community service of a punitive nature, for example, requiring underage drinkers to clean highways? Do you agree or disagree that this type of community service is appropriate? Would you say you . . .?

	Strongly disagree	1
	Disagree	2
	Agree	3
	Strongly agree	4
(DO NOT READ.) ←	Don't know, no preference	5

61b. Community service related to alcohol use, for example, requiring underage drinkers to work with recovering alcoholics or children of alcoholics. Do you agree or disagree that this type of community service is appropriate? Would you say you . . .?

(VERSION 1, GO TO Q. 64.) ←	Strongly disagree	1
(VERSION 1, GO TO Q. 64.) ←	Disagree	2
(VERSION 1, GO TO Q. 64.) ←	Agree	3
(VERSION 1, GO TO Q. 64.) ←	Strongly agree	4
(DO NOT READ.) ←	Don't know, no preference	5

61c. **IF NO, ASK:** Which of the following reasons best represent why you do not support this policy?

	Cost of enforcement	1
	It targets or punishes the wrong party	2
	It unfairly infringes on adults' rights to drink alcohol.	3
	It doesn't address the problem. The policy is not a logical way to reduce underage drinking.	4
	Other **(SPECIFY.)** ______________________	5
(DO NOT READ.) ←	No response	6

62. **Version 2:**

- One policy states that minors caught drinking alcohol should have their driver's licenses suspended or revoked.

Would you be in favor of having this policy implemented in your community, or, if it already exists in your community, are you in favor of it?

(SKIP TO Q. 64.) ←	Yes	1
	No	2

IF NO, ASK: Which of the following reasons best represent why you do not support this policy?

(VERSION 2, GO TO Q. 64.) ←	Cost of enforcement	1
(VERSION 2, GO TO Q. 64.) ←	It targets or punishes the wrong party	2
(VERSION 2, GO TO Q. 64.) ←	It unfairly infringes on adults' rights to drink alcohol.	3
(VERSION 2, GO TO Q. 64.) ←	It doesn't address the problem. The policy is not a logical way to reduce underage drinking.	4
	Other **(SPECIFY.)** ________________	5
(DO NOT READ.) ←	No response	6

63. **Version 3:**

- One policy states that minors caught drinking alcohol should be suspended from school.

Would you be in favor of having this policy implemented in your community, or, if it already exists in your community, are you in favor of it?

←	Yes	1
(SKIP TO Q. 63d.) ←	No	2

IF YES, ASK: Would you be in favor of suspending underage drinkers from school under each of the following conditions?

63a. If it was the first time the youth was caught drinking?

	Yes	1
	No	2
(DO NOT READ.) ←	Don't know, no preference	3

63b. If the youth is caught drinking on school grounds only?

	Yes	1
	No	2
(DO NOT READ.) ←	Don't know, no preference	3

63c. If the youth is caught drinking anywhere (on or off school grounds)?

(GO TO Q. 64.) ←	Yes	1
(GO TO Q. 64.) ←	No	2
(SKIP TO Q. 64. DO NOT READ.) ←	Don't know, no preference	3

63d. **IF NO, ASK:** Which of the following reasons best represent why you do not support this policy?

	Cost of enforcement	1
	It targets or punishes the wrong party	2
	It unfairly infringes on adults' rights to drink alcohol.	3
	It doesn't address the problem. The policy is not a logical way to reduce underage drinking.	4
	Other **(SPECIFY.)** ______________________	5
(DO NOT READ.) ←	No response	6

64. **The next policy is a . . .Zero tolerance policy**

All Versions

- This policy states that there should be a uniform zero tolerance policy for underage drinking across all the states, such that no state will allow for any underage drinking at all, regardless of the amount of alcohol consumed.

Would you be in favor of having this policy implemented in your community, or, if it already exists in your community, are you in favor of it?

(SKIP TO Q. 65.) ←	Yes	1
	No	2

64a. **IF NO, ASK:** Which of the following reasons best represent why you do not support this policy?

	Cost of enforcement	1
	It targets or punishes the wrong party	2
	It unfairly infringes on adults' rights to drink alcohol.	3
	It doesn't address the problem. The policy is not a logical way to reduce underage drinking.	4
	Other **(SPECIFY.)** ______________________	5
(DO NOT READ.) ←	No response	6

65. **The next policy is to . . .Impose penalties on commercial establishments selling alcohol to minors:**

Version 1:

- One way is to suspend or withdraw the alcohol establishment's liquor license.

Version 2:

- One way is to impose criminal liability on alcohol establishments that sell alcohol to minors, requiring probation or jail time.

Version 3:

- One way is to impose civil liability, allowing lawsuits against alcohol establishments that sell alcohol to minors for damage caused by the minor while under the influence of alcohol.

Would you be in favor of having this policy implemented in your community, or, if it already exists in your community, are you in favor of it?

(SKIP TO Q. 66.) ←	Yes	1
	No	2

65a. **IF NO, ASK:** Which of the following reasons best represent why you do not support this policy?

	Cost of enforcement	1
	It targets or punishes the wrong party	2
	It unfairly infringes on adults' rights to drink alcohol.	3
	It doesn't address the problem. The policy is not a logical way to reduce underage drinking.	4
	Other **(SPECIFY.)** ______________________	5
(DO NOT READ.) ←	No response	6

66. **The next policy is to . . .Impose penalties on individuals who provide alcohol to minors:**

Version 1:

- One way is to penalize individuals who are over 21 who provide alcohol to an underage friend.

Version 2:

- One way is to penalize individuals who are over 21 who provide alcohol to an underage brother or sister.

Version 3:

- One way is to penalize individuals who are over 21 and lend their Ids to a minor.

Would you be in favor of having this policy implemented in your community, or, if it already exists in your community, are you in favor of it?

(SKIP TO Q. 67.) ←	Yes	1
	No	2

66a. **IF NO, ASK:** Which of the following reasons best represent why you do not support this policy?

	Cost of enforcement	1
	It targets or punishes the wrong party	2
	It unfairly infringes on adults' rights to drink alcohol.	3
	It doesn't address the problem. The policy is not a logical way to reduce underage drinking.	4
	Other **(SPECIFY.)** ____________________	5
(DO NOT READ.) ←	No response	6

67. **The next policy is to . . .Impose monetary fines as a punishment or deterrent for underage drinking:**

VERSION 2, SKIP TO Q. 68. VERSION 3, SKIP TO Q. 69.

Version 1:

- One way is to require underage drinkers to pay a substantial fine.

Would you be in favor of having this policy implemented in your community, or, if it already exists in your community, are you in favor of it?

(SKIP TO Q. 70.) ←	Yes	1
	No	2

67a. **IF NO, ASK:** Which of the following reasons best represent why you do not support this policy?

(VERSION 1, GO TO Q. 70.)	Cost of enforcement	1
(VERSION 1, GO TO Q. 70.) ←	It targets or punishes the wrong party	2
(VERSION 1, GO TO Q. 70.) ←	It unfairly infringes on adults' rights to drink alcohol.	3
(VERSION 1, GO TO Q. 70.) ←	It doesn't address the problem. The policy is not a logical way to reduce underage drinking.	4
(VERSION 1, GO TO Q. 70.) ←	Other **(SPECIFY.)** ______________	5
(VERSION 1, GO TO Q. 70.) ←	No response	6

Version 2:

68. One way is to require parents of underage drinkers to pay a substantial fine.

Would you be in favor of having this policy implemented in your community, or, if it already exists in your community, are you in favor of it?

	Yes	1
(SKIP TO Q. 68b.) ←	No	2

68a. **IF YES, ASK:** Should parents be required to pay a fine only if they had prior knowledge of their child's drinking or regardless of whether or not they had prior knowledge of their child's drinking?

Only with prior knowledge	1
Regardless of prior knowledge	2

68b. **IF NO, ASK:** Which of the following reasons best represent why you do not support this policy?

(VERSION 2, GO TO Q. 70.)		Cost of enforcement	1
(VERSION 2, GO TO Q. 70.)	←	It targets or punishes the wrong party	2
(VERSION 2, GO TO Q. 70.)	←	It unfairly infringes on adults' rights to drink alcohol.	3
(VERSION 2, GO TO Q. 70.)	←	It doesn't address the problem. The policy is not a logical way to reduce underage drinking.	4
(VERSION 2, GO TO Q. 70.)	←	Other **(SPECIFY.)** ____________________	5
(VERSION 2, GO TO Q. 70.)	←	No response	6

69. **Version 3:**

- One way is to require commercial establishments that sell alcohol to minors to pay a substantial fine.

Would you be in favor of having this policy implemented in your community, or, if it already exists in your community, are you in favor of it?

		Yes	1
(SKIP TO Q. 69b.)	←	No	2

69a. **IF YES, ASK:** Which of the following people in the alcohol establishment should be responsible for paying the fine?

The owner of the alcohol establishment	1
The employee who sold alcohol to a minor	2
Both the owner and the employee	3

69b. **IF NO, ASK:** Which of the following reasons best represent why you do not support this policy?

	Cost of enforcement	1
	It targets or punishes the wrong party	2
	It unfairly infringes on adults' rights to drink alcohol.	3
	It doesn't address the problem. The policy is not a logical way to reduce underage drinking.	4
	Other **(SPECIFY.)** ______________________	5
(DO NOT READ.) ←	No response	6

70. **The next policy is to . . .Restrict home delivery of alcohol:**

All Versions:

- The policy states that home delivery of alcohol, for example through Internet sales, should be regulated to reduce alcohol purchases by minors.

Would you be in favor of having this policy implemented in your community, or, if it already exists in your community, are you in favor of it?

	Yes	1
(SKIP TO Q. 70c.) ←	No	2

70a. **IF YES, ASK:** Do you believe that home delivery of alcohol should be completely banned?

(SKIP TO Q. 71.) ←	Yes	1
	No	2

70b. **IF NO TO 70a, ASK:** Do you believe that home delivery of alcohol should be permitted but that package delivery personnel should be required to check for proper identification from the recipient of the delivery?

(SKIP TO Q. 71.) ←	Yes	1
(SKIP TO Q. 71.) ←	No	2

70c. **IF NO, ASK:** Which of the following reasons best represent why you do not support this policy?

	Cost of enforcement	1
	It targets or punishes the wrong party	2
	It unfairly infringes on adults' rights to drink alcohol.	3
	It doesn't address the problem. The policy is not a logical way to reduce underage drinking.	4
	Other **(SPECIFY.)** ________________________	5
(DO NOT READ.) ←	No response	6

71. **The next policy is to . . .Require mandatory keg registration:**

All Versions:

- The policy states that mandatory keg registration, which attaches buyer-identifying information to every keg purchase, should be required so that the registered buyer can be held responsible if an underage drinker uses the keg.

Would you be in favor of having this policy implemented in your community, or, if it already exists in your community, are you in favor of it?

(SKIP TO Q. 72.) ←	Yes	1
	No	2

71a. **IF NO, ASK:** Which of the following reasons best represent why you do not support this policy?

	Cost of enforcement	1
	It targets or punishes the wrong party	2
	It unfairly infringes on adults' rights to drink alcohol.	3
	It doesn't address the problem. The policy is not a logical way to reduce underage drinking.	4
	Other **(SPECIFY.)** ____________________	5
(DO NOT READ.) ←	No response	6

72. I have just a few final questions about use of alcohol. How often do you drink alcoholic beverages? (A "drink" is a glass of wine, a bottle of beer, a wine cooler, a shot glass of liquor, or a mixed drink.)

(SKIP TO Q. 75.) ←	Seldom drink (never or not in the past 12 months)	1
	Drink a few times a month (at least once a month, but less than once a week)	2
	Drink a few times a week	3
	Drink almost every day or daily	4
	Other **(SPECIFY)** ____________________	5
	No response	6

73. On the days that you drank during the past 30 days, how many drinks did you usually have? (A "drink" is a glass of wine, a bottle of beer, a wine cooler, a shot glass of liquor, or a mixed drink.)

___ ___

74. Which of the following best describes your usual drinking pattern? Do you usually drink . . .?

	Yes	No
At parties and social gatherings	1	2
Drink with meals	1	2
Drink at bars	1	2
Drink at home with family and friends	1	2
Drink alone, at home or bars	1	2
Other place or situation **(IF "YES," SPECIFY)**	1	2

____

75. Have you, or a member of your family, ever had problems caused by your own drinking?

Yes	1
No	2
No response	3

76. Have you, or a member of your family, ever had problems with other people because they were drinking alcohol?

Yes	1
No	2
No response	3

Thank you very much. Those are all the questions that I have. May I have your first name only, in case my supervisor needs to call to be sure that I did my job correctly?

NAME: ____

Appendix C
Survey Methodology

The *CASA National Underage Drinking Survey* was conducted in March and April of 2001. To inform the survey, four focus groups were conducted in January of 2001 in Louisville, Kentucky by the Pacific Institute for Research and Evaluation (PIRE). The focus groups consisted of (1) male adults with children under 21-years old; (2) male adults without children under 21-years old; (3) female adults with children under 21-years old; and (4) female adults without children under 21-years old. Pretesting of the survey instrument and eligibility screening took place between March 7 and March 10, 2001. This study was approved by the Institutional Review Board (IRB) of CASA.

Focus Groups

Forty-two participants took part in the focus groups. The average age of the participants was 45.5 years. Thirty-four of the participants were white, seven were African-American and one was Hispanic. Twenty-seven were employed outside the home--20 worked full-time and seven worked part-time. The highest level of education completed was high school or GED for nine of the participants, technical/vocational school for five of the participants, a two-year community college for seven of the participants, college for 13 of the participants and graduate school for eight of the participants. Fifteen of the participants lived in the city of Louisville, 17 lived in a suburb of Louisville, five lived in a small town outside the Louisville metro area, three lived in a rural area and two lived in an area not in a city or town. Thirty of the respondents were married, five were single/never married, four were living with a partner and three were divorced. Nine of the participants had no children, 11 had children over the age of 21 and 22 had children under the age of 21.

Survey

Southern Research Services (SRS) in Louisville, Kentucky, under subcontract with the Pacific Institute for Research and Evaluation (PIRE), conducted the survey. Nine hundred telephone interviews were conducted with adults, age 21 or older. The average length of the interviews was 23 minutes. Before data collection, extensive pretesting of the survey instrument was conducted. There were three versions of the survey instrument, each of which was administered to one-third of the sample. Except for questions relating to particular policy options, the majority of the questions were the same across the three versions. With regard to policy options, each version had the same theme but a different variation on the proposed policy.

Respondent Characteristics

Nine hundred respondents were interviewed. Half the respondents were female and half had children under the age of 21. Respondents age categories were: 21 to 24 (6.8 percent), 25 to 34 (20.3 percent), 35 to 44 (23.5 percent), 45 to 54 (18.9 percent), 55 to 64 (13.4 percent), 65 to 74 (10.6 percent) and 75 or older (6.5 percent).

Respondents' reported racial/ethnic groups were: white (82.1 percent), African-American (7.9 percent), Hispanic/Latino (3.6 percent), Asian/Pacific Islander (2 percent) and of mixed race or other racial/ethnic backgrounds (4.2 percent).

One-third (32.7 percent) of respondents completed high school/GED, 27.3 percent attended college or a technical/vocational school, 22.5 percent completed college, 10.9 percent attended graduate school and 6.5 percent had less than a high school education.

The majority (64.6 percent) of respondents was married, 16.1 percent were single/never married, 16.9 percent were separated, divorced or widowed and 2.3 percent were living with a partner.

Reported annual incomes were: less than $15,000 (10.1 percent), $15,000 to $30,000 (21.6 percent), $30,000 to $50,000 (26.4 percent), $50,000 to $75,000 (23.6 percent) and above $75,000 (18.3 percent).

Over half (57.6 percent) of respondents stated that they seldom drink or do not drink, 24.4 percent said they drink a few times a month, 14.4 percent said they drink a few times a week and 3 percent said they drink almost every day or daily. Most respondents (87.4 percent) said their own drinking has never caused problems to them or to members of their family and 12.6 percent said that it has.

Whereas one in 10 (10.4 percent) respondents reported that they do not usually vote, 35.6 affiliated with the Democratic Party, 35.4 percent affiliated with the Republican Party and 18.5 percent identified themselves as Independent.

Pilot Testing

Thirty interviews were conducted with a random sample of households throughout the United States, including 10 interviews for each of the three versions of the survey. Each version was tested with the target population of adults, ages 21-years and older.

The pilot test was evaluated on several dimensions, including respondents' understanding of the questions, the length of the survey and a review of the technical aspects of administering the survey (e.g., skip patterns for contingency questions). Interviewers took part in a formal debriefing session to evaluate the ease of administration and to offer additional insights concerning respondents' reactions to questions or any confusion that respondents seemed to demonstrate.

Data Collection

Telephone interviews were conducted from the corporate offices of Southern Research Services (SRS) in Louisville, Kentucky by a fully supervised professional interviewing staff. The staff of SRS has extensive training in survey research.

Quotas were established to complete 300 interviews for each of the three versions of the questionnaire. One-half of the respondents for each version had to have children under 21 years of age in the household and gender was equally split. To reduce order bias, questions about the policies were asked prior to the general attitudinal questions for half of the respondents in each of the three policy version subgroups.

To avoid interview bias, the survey utilized a random digit dialing (RDD) design. This included both listed and unlisted numbers. The computer-generated numbers were selected proportionate to telephone household exchanges throughout the nation.

To reduce non-response bias, at least ten attempts were made to contact all respondents and the times of day were segmented to include daytime and evening calls for all numbers, as well as weekends and weeknights. For each call, the interviewer allowed the phone to ring six times before hanging up to give potential respondents ample time to answer.

Coding and Data Entry

Codes were developed and reviewed by the research team at SRS, PIRE and CASA to ensure consistency. Answers to questions with precoded response categories were entered during the interview. Open-ended questions required the entry of a verbatim comment that was coded after the interview.

Appendix D
Industry Advertising Guidelines: Youth-Related Provisions

	Beer Institute	DISCUS	Wine Institute
Alcohol Advertisements Should Not Be Of Direct To Appeal To Youth, By:			
Having a particular youth appeal		✓	
Encouraging underage drinking			
Showing underage models	✓	✓	✓
Showing underage drinking			
Suggesting violation of drinking age laws			
Alcohol Ads Should Not Use Youth-Oriented Subject Matter, Including:			
Music	✓		✓
Language	✓		✓
Gestures	✓		✓
Cartoon characters	✓	✓	✓
Objects, e.g., toys		✓	✓
Comparison with youth products, e.g., candy			✓
Alcohol Ads Should Not Use Personalities To Appeal To Youth, Such As:			
Youth-oriented performers or heroes	✓		✓
Sports celebrities			✓
Santa Claus	✓	✓	✓
Alcohol Ads Should Not Show Drinking As Essential To Achievement, Such As:			
Adulthood			✓
Education			
Personal or social success			
Alcohol Advertising Or Promotions Should Not Attract An Underage Audience, As Found:			
In the broadcast media or movie theatres			✓
In youth-oriented media	✓		✓
At youth-oriented events, e.g., concerts	✓		
Near schools or in college media			✓
On youth-related items, e.g., toys, games	✓		

Sources: Beer Institute, *Brewing Industry Advertising Guidelines*, 1997; Distilled Spirits Council of the United States (DISCUS), *Code of Good Practice*, 1998; Wine Institute, *Code of Advertising Standards*, 2000. The **Beer Institute** is a trade association for the malt beverage industry. The **Distilled Spirits Council of the United States** (DISCUS) is the national trade association representing producers and marketers of distilled spirits sold in the United States. The **Wine Institute** is the public policy advocacy association of California wineries.

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Appendix E

Methodology: Assessing the Value of Underage Drinking and Heavy Drinking to the Alcohol Industry

Using data from Adams Business Research, the leading supplier of market research data to the alcohol beverage industry, CASA determined that the total consumer expenditure on alcohol in 1998 was $108.4 billion: $59.8 billion on beer, $14.5 billion on wine and $34.1 billion on distilled spirits. According to this alcohol industry data, 57 percent of the total alcohol consumed is beer, 14 percent is wine and 29 percent is distilled spirits.*

Estimate Of Total Alcohol Consumed In The U.S. In 1998

Using data from the 1998 National Household Survey on Drug Abuse (NHSDA), CASA calculated the total number of drinks consumed within one month by the entire sample (all respondents were ages 12 and older) by multiplying the number of reported days that respondents drank in the past month by the number of drinks they reported having on a typical drinking day (Frequency *X* Quantity). This analysis revealed that the estimated total number of drinks consumed by respondents within the past month was 251,194.

It is important to note that this figure actually underestimates total alcohol consumption for the following reasons:

- CASA's estimates of alcohol consumed by the heavy and underage drinkers are derived from NHSDA data. The NHSDA is a general civilian household survey and, as such, does not include members of certain institutionalized populations (e.g., the homeless who do not use shelters, active military personnel, hospital patients or incarcerated individuals); many of these constitute subgroups with a disproportionate number of drinkers.

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* Clearly, different subgroups of drinkers have different patterns of consumption; because of data limitations, we applied these percentages to all groups of drinkers assessed in this analysis.

- CASA's estimate of alcohol consumed by underage drinkers is derived from NHSDA data which excludes underage drinkers below the age of 12.

- The NHSDA data used in these analyses are based on self-reported alcohol use. It is widely believed that people in general, and young people in particular, typically underreport substance use behaviors in self-report surveys.

- The estimate of the total number of drinks consumed by the sample in one month was derived by multiplying the number of reported days that respondents drank in the past month (frequency of alcohol use) by the number of drinks they reported having on a *typical* drinking day (typical quantity of alcohol use). This excludes all instances of heavy or binge drinking episodes which would not be considered by most of the respondents to be the typical amount that they drink on an average drinking day.

Total Alcohol Consumed by Underage Drinkers

Using NHSDA data, CASA employed the Frequency *X* Quantity variable to estimate the total number of alcoholic drinks per month reportedly consumed by underage drinkers (ages 12 through 20). Analysis of the NHSDA data indicated that individuals ages 20 and younger consumed a total of 63,230 drinks in one month (average of 0.9 a day), or 25 percent of the total alcohol consumed (251,194 drinks) by the NHSDA sample. This estimate includes several outliers (improbable extreme scores) which, when removed, reduce by one percent the proportion of total alcohol consumption that can be attributed to underage drinkers. Nevertheless, this estimate is can be conservative for the reasons indicated above.

To take into account the overall proportions of alcohol consumption that can be attributed to beer (57 percent), wine (14 percent) and distilled spirits (29 percent), we applied these proportions to the total number of drinks consumed by this age group (63,230). This analysis revealed that underage drinkers consume an estimated 36,041 drinks of beer (14 percent of the total alcohol consumed), 8,852 drinks of wine (four percent of the total alcohol consumed) and 18,337 drinks of distilled spirits (seven percent of the total alcohol consumed).

Applying the percent of total alcohol consumed by underage drinkers (25 percent) to the total consumer expenditures on alcohol ($108.4 billion), we determined that underage drinkers account for up to $27 billion of the total consumer expenditures for alcohol. Applying the proportion of total alcohol consumed that can be attributed to beer (57 percent), wine (14 percent) and distilled spirits (29 percent) in the general population, CASA estimates that underage beer consumption accounts for up to $15 billion of the total consumer expenditures on alcohol. Underage wine consumption accounts for up to $4 billion and underage distilled spirits consumption account for up to $8 billion of this total expenditure.

Due to a lack of available data, these expenditure calculations do not take into account the exact proportion of each type of alcoholic beverage consumed by underage drinkers or the differential prices of each type of alcoholic beverage.

Total Alcohol Consumed By The Top 2.5 Percent Heaviest Drinkers

Using 1998 data from the National Household Survey on Drug Abuse (NHSDA), CASA attempted to replicate the findings from the Alcohol Research Group's estimation of alcohol consumption by the heaviest (top 2.5 percent) drinkers ages 18 and older in the U.S. First, CASA estimated the total number of drinks consumed by those ages 18 and older who constituted the top 2.5 percentile of past month alcohol consumption. The analysis indicated that among those ages 18 and older in the NHSDA sample, the top 2.5 percent of heaviest drinkers consumed a total of 65,070 drinks in one month (average of 9 per day), or 26 percent of the total alcohol consumed (251,194 drinks) by the NHSDA sample. This percentage directly replicates the findings of the Alcohol Research Group's analysis.

Repeating this analysis, but this time excluding all underage drinkers (i.e., including only those ages 21 and older), we found that the top 2.5 percent of the heaviest drinkers ages 21 and over consumed a total of 51,974 drinks in one month (average of 9 a day), or 21 percent of the total alcohol consumed (251,194 drinks) by the NHSDA sample.

Taking into account the overall proportions of alcohol consumption that can be attributed to beer (57 percent), wine (14 percent) and distilled spirits (29 percent), we applied these proportions to the total number of drinks consumed by these heaviest drinkers (51,974). This analysis revealed that the top 2.4 percent heaviest drinkers consume an estimated 29,625 drinks of beer (12 percent of the total alcohol consumed), 7,276 drinks of wine (three percent of the total alcohol consumed) and 15,072 drinks of distilled spirits (six percent of the total alcohol consumed).

Applying the percent of total alcohol consumed by the heaviest drinkers (21 percent) to the total consumer expenditures on alcohol ($108.4 billion), we determined that these heaviest drinkers account for up to $23 billion of the total consumer expenditures for alcohol. Applying the proportion of total alcohol consumed that can be attributed to beer (57 percent), wine (14 percent) and distilled spirits (29 percent) in the general population, CASA estimates that the heaviest drinkers' beer consumption accounts for up to $13 billion of the total consumer expenditures on alcohol. Heaviest drinkers' wine consumption accounts for up to $3 billion and their distilled spirits consumption account for up to $7 billion of this total expenditure. As was true for the underage drinkers, these expenditure calculations do not take into account the exact proportion of each type of alcoholic beverage consumed by the top 2.5% heaviest drinkers or the differential prices of each type of alcoholic beverage.

Total Alcohol Consumed By Heavy Drinkers

To provide a wider range of estimates of the alcohol consumed by heavy drinkers than that provided by the ARG study or CASA's replication of that study, CASA conducted a similar set of analyses on the alcohol consumption of all drinkers who consume more than a moderate amount of alcohol per day (i.e., more than two drinks per day). Although there are many ways to define "heavy drinking," the NIAAA recommends the consumption of no more than two drinks per day for men and one drink per day for women. For the purposes of the present analysis, CASA defined heavy drinking as consuming more than an average of two drinks per day, or 60 drinks in a month. Using NHSDA data and the same Frequency *X* Quantity variable created for the prior set of analyses, CASA estimated that approximately 8.5 percent of those 21 and older consumed more than 60 drinks per month.

The analysis indicated that among those ages 21 and older in the NHSDA sample, these heavy drinkers consumed a total of 90,555 drinks in one month (average of 5 a day), or 36 percent of the total alcohol consumed (251,194 drinks) by the NHSDA sample.

Taking into account the overall proportions of alcohol consumption that can be attributed to beer (57 percent), wine (14 percent) and distilled spirits (29 percent), we applied these proportions to the total number of drinks consumed by this group (90,555). This analysis revealed that the top 8.5 percent of the heavy drinkers ages 21 and older consume an estimated 51,616 drinks of beer (21 percent of the total alcohol consumed), 12,678 drinks of wine (five percent of the total alcohol consumed) and 26,261 drinks of distilled spirits (10 percent of the total alcohol consumed).

Applying the percent of total alcohol consumed by these heavy drinkers (36 percent) to the total consumer expenditures on alcohol ($108.4 billion), we determined that heavy drinkers account for up to $39 billion of the total consumer expenditures for alcohol. Applying the proportion of total alcohol consumed that can be attributed to beer (57 percent), wine (14 percent) and distilled spirits (29 percent) in the general population, CASA estimates that heavy drinkers' beer consumption accounts for up to $22 billion of the total consumer expenditures on alcohol. Heavy drinkers' wine consumption accounts for up to $6 billion and their distilled spirits consumption account for up to $11 billion of this total expenditure.

Loss In Consumer Expenditures Should All "Heavier" Drinkers Become Moderate Drinkers

CASA conducted additional analyses to understand the reduction in total alcohol use and in alcohol consumer expenditures that would occur if all those who drink more than the recommended amount of two drinks per day but less than the amount consumed by the top 2.5 percent heaviest drinkers were to become moderate drinkers.

Selecting only individuals who fall into this "heavier" drinking category (i.e., excluding the heaviest drinkers), CASA estimated that among those ages 21 and older in the NHSDA sample, these "heavier" drinkers consumed a total of 38,581 drinks in one month, or 15 percent of the total alcohol consumed (251,194 drinks) by the NHSDA sample. Breaking this consumption down by beverage type, these heavier drinkers consumed 21,991 drinks of beer (nine percent of the total alcohol consumed), 5,401 drinks of wine (two percent of the total alcohol consumed) and 11,188 drinks of distilled spirits (five percent of the total alcohol consumed).

Applying the percent of total alcohol consumed by these "heavier" drinkers (15 percent) to the total consumer expenditures on alcohol ($108.4 billion), we determined that "heavier" drinkers account for up to $17 billion of the total consumer expenditures for alcohol.

Assuming that all the individuals who fall into this "heavier" drinking category were to drink moderately, or two drinks per day, we estimate that this group would have consumed 24,720 drinks in a month (rather than 38,581), or 10 percent of the total alcohol consumed (251,194 drinks) by the NHSDA sample. Breaking this consumption down by beverage type, these drinkers would have consumed 14,090 (rather than 21,991) drinks of beer, 3,461 (rather than 5,401) drinks of wine and 7,169 (rather than 11,188) drinks of distilled spirits. Applying the percent of total alcohol consumed by these "heavier" drinkers consuming a moderate amount to the total consumer expenditures on alcohol ($108.4 billion), we determined that these drinkers would account for up to $11 billion of the total consumer expenditures for alcohol.

Therefore, converting "heavier" drinkers into moderate drinkers would amount to an estimated loss of $6 billion ($17 billion - $11 billion) in total consumer expenditures for alcohol.

Loss In Consumer Expenditures If "Heavier" Drinkers Became Moderate Drinkers And Heaviest And Underage Drinking Were Eliminated

Based on the analyses above, CASA determined that converting "heavier" drinkers ages 21 and older into moderate drinkers would result in a loss of up to $6 billion; eliminating the heaviest drinking among those ages 21 and older would result in a loss of up to $23 billion; and eliminating underage drinking would result in a loss of up to $27 billion in consumer expenditures. Together, this amounts to a total loss of up to $56 billion in consumer expenditures.

Applying the proportion of total alcohol consumed that can be attributed to beer (57 percent), wine (14 percent) and distilled spirits

(29 percent) in the general population, CASA estimates that the loss in beer expenditures would be an estimated $32 billion, the loss in wine expenditures would be an estimated $8 billion and the loss in distilled spirits expenditures would be an estimated $16 billion.

Methodological Comparison Of The Alcohol Research Group (ARG) And CASA Analyses

Both the Alcohol Research Group's (ARG) study sample and the NHSDA sample are considered to be nationally representative. However, the NHSDA sample is over three times larger (and thus potentially even more representative) than the ARG sample. The NHSDA sample size is 25,500, including 9,759 under the age of 21. The total sample size of the ARG study is 7,049.

Two important differences between the ARG and CASA approaches are that the wording of the alcohol use frequency and quantity measures used in ARG's survey and the NHSDA were not identical and that those measures contained different types of response options (e.g., closed- vs. open-ended). In addition, ARG's analysis focused exclusively on individuals ages 18 and older, whereas CASA conducted the analyses using two possible definitions of adults--those over the age of 18 (to replicate ARG's study) and those over the age of 21 (to include only those of legal drinking age). Finally, whereas CASA attempted to link alcohol consumption to alcohol expenditures, ARG's study did not link its findings to alcohol-related consumer expenditures.

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